

CITY OF COSTA MESA
ORANGE COUNTY, CALIFORNIA

NOTICE TO BIDDERS, PROPOSAL, CONTRACT, AND
SPECIAL PROVISIONS FOR

**CITYWIDE PARKWAY MAINTENANCE,
STREET REHABILITATION, AND SLURRY SEAL PROJECT**

CITY PROJECT NO. 21-03

Prepared Under the Direction of



Seung Yang, P.E.

City Engineer

Copy No. _____

Checked by _____

TABLE OF CONTENTS

PAGE NUMBER

TABLE OF CONTENTS	i THRU v
-------------------------	----------

SECTION A

NOTICE INVITING BIDS	N-1 THRU N-2
----------------------------	--------------

SECTION B

INFORMATION FOR BIDDERS	B-1
-------------------------------	-----

1	PREPARATIONS OF BID FORM	B-1
2	QUALIFICATION OF BIDDERS	B-1
3	BID SECURITY	B-1
4	NON-COLLUSION AFFIDAVIT	B-1
5	SIGNATURE	B-1
6	CORRECTIONS	B-1
7	DELIVERY OF PROPOSAL	B-1
8	BID DEPOSIT RETURN.....	B-1
9	TAXES	B-2
10	WITHDRAWAL OF BIDS.....	B-2
11	AGREEMENT AND BONDS	B-2
12	FORFEITURE FOR FAILURE TO POST SECURITY AND EXECUTE AGREEMENT	B-2
13	BIDDERS INTERESTED IN MORE THAN ONE BID	B-2
14	EXAMINATION OF SITE AND CONTRACT DOCUMENTS.....	B-2
15	INTERPRETATION OF PLANS AND DOCUMENTS	B-3
16	ADDENDA	B-3
17	QUESTIONS TO THE ENGINEER	B-3
18	EQUIVALENT MATERIALS	B-3

Table of Contents

(CONTINUED)

	<u>PAGE NUMBER</u>
19	EVIDENCE OF RESPONSIBILITY..... B-3
20	LEGAL RESPONSIBILITIES B-3
21	ANTI-DISCRIMINATION B-4
22	DRUG-FREE WORKPLACE POLICY..... B-4
23	BID PROTEST PROCEDURES B-4
24	ASSEMBLY BILL 626..... B-4
	REQUEST FOR INTERPRETATION OF CONTRACT DOCUMENTS B-6

SECTION C

PROPOSAL	P-1 THRU P-11
-----------------------	---------------

SECTION D

GENERAL PROVISIONS	GP-1
1-2	TERMS AND DEFINITIONS.....GP-2
1-3	ABBREVIATIONSGP-2
1-6	BIDDING AND SUBMISSION OF BIDGP-3
1-6.1.1	REQUEST FOR INTERPRETATIONGP-3
1-6.1.2	SOIL CONDITIONSGP-4
1-6.1.3	RETURN OF BID SECURITYGP-4
1-6.2	SUBCONTRACTING LISTINGGP-4
1-7	AWARD AND EXECUTION OF THE CONTRACTGP-5
1-7.1.1	EXECUTION OF THE AGREEMENTGP-5
1-7.2	CONTRACT BONDS.....GP-5
2-1	WORK TO BE DONEGP-6
2-2	PERMITS.....GP-6

Table of Contents (CONTINUED)

		<u>PAGE NUMBER</u>
2-5	THE CONTRACTOR'S EQUIPMENT AND FACILITIES	GP-6
2-5.2	TEMPORARY UTILITY SERVICES	GP-6
2-5.4	HAUL ROUTES	GP-7
2-10	CHANGES INITIATED BY THE AGENCY	GP-8
2-8	EXTRA WORK	GP-8
2-9	CHANGED CONDITIONS	GP-8
3-1	ASSIGNMENT.....	GP-8
3-4	AUTHORITY OF THE BOARD AND THE ENGINEER	GP-8
3-5	INSPECTION	GP-9
3-6	THE CONTRACTOR'S REPRESENTATIVE	GP-10
3-7	CONTRACT DOCUMENTS	GP-10
3-10	SURVEYING.....	GP-11
3-10.3	LINE AND GRADE	GP-11
3-12	WORK SITE MAINTENANCE.....	GP-11
3-12.2	AIR POLLUTION CONTROL.....	GP-12
3-12.6	WATER POLLUTION CONTROL	GP-12
3-12.6.2	BEST MANAGEMENT PRACTICES (BMP's).....	GP-13
3-12.6.3	STORM WATER POLLUTION PREVENTION PLAN (SWPPP)	GP-13
3-12.6.4	DEWATERING	GP-14
3-13.3	WARRANTY	GP-15
4-4	TESTING	GP-15
5-1	LAWS AND REGULATIONS	GP-16
5-2	SPECIAL NOTICES.....	GP-16
5-3	LABOR.....	GP-16

Table of Contents

(CONTINUED)

		<u>PAGE NUMBER</u>
5-3.3	PAYROLL RECORDS	GP-16
5-3.5	APPRENTICES	GP-16
5-4	INSURANCE	GP-17
5-7	SAFETY	GP-17
5-7.1	WORK SITE SAFETY	GP-17
5-7.8	STEEL PLATE COVERS	GP-18
6-1	CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK.....	GP-18
6-1.1	CONSTRUCTION SCHEDULE	GP-18
6-1.3	DAILY REPORT SUBMITTAL	GP-19
6-3	TIME OF COMPLETION	GP-19
6-5	USE OF IMPROVEMENT DURING CONSTRUCTION	GP-19
6-7	TERMINATION OF THE CONTRACT FOR DEFAULT	GP-19
6-7.3	NOTICE OF TERMINATION FOR DEFAULT	GP-19
6-7.4	RESPONSIBILITY OF SURETY	GP-19
6-9	LIQUIDATED DAMAGES	GP-20
7-3	PAYMENT	GP-20
7-3.2	PARTIAL AND FINAL PAYMENT	GP-20
7-3.2.1	PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS.....	GP-22
7-3.2.2	PROMPT PAY MONITORING AND ENFORCEMENT OF PROGRESS PAYMENTS.....	GP-22
7-3.3	DELIVERED MATERIALS	GP-23
7-3.4	MOBILIZATION	GP-23
7-3.4.1	TRAVEL ROUTE AND TRUCKING AN EQUIPMENT	GP-24

Table of Contents (CONTINUED)

	<u>PAGE NUMBER</u>
7-3.4.2 CONSTRUCTION SEQUENCE/ORDER OF WORK	GP-24
7-4 PAYMENT FOR EXTRA WORK.....	GP-24
7-4.2 BASIS FOR ESTABLISHING COSTS.....	GP-24
7-4.2.1 LABOR.....	GP-24
7-4.3 MARKUPS	GP-25
7-4.3.1 WORK BY THE CONTRACTOR	GP-25
7-4.3.2 WORK BY A SUBCONTRACTOR	GP-25
7-6 SUMMARY OF PUBLIC CONTRACT CODE § 9204.....	GP-25

SECTION E

SPECIAL PROVISIONS	SP-1 THRU SP-49
---------------------------------	------------------------

SECTION F

MISCELLANEOUS CONTRACT DOCUMENTS (SAMPLE)

1 AGREEMENT (SAMPLE).....	22 PAGES
2 COUNCIL POLICY	D-1 - D-3
3 INSURANCE (SAMPLE)	2 PAGES
4 BONDS	2 PAGES
5 PERMIT APPLICATION	1 PAGE
6 APPLICATION FOR BUSINESS LICENSE	1 PAGE

SECTION G

APPENDICES

APPENDIX "A" PROJECT LOCATIONS AND MAP	6 PAGES
APPENDIX "B" STRIPING PLANS	BID ADDENDUM
APPENDIX "C" CITY AND CALTRANS STANDARD DRAWINGS.....	53 PAGES

**CITY OF COSTA MESA
ORANGE COUNTY, CALIFORNIA
NOTICE INVITING BIDS**

NOTICE IS HEREBY GIVEN that the City of Costa Mesa ("City") invites sealed bids, to be submitted electronically only, for the following project:

**PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT,
CITY PROJECT NO. 21-03**

1. **BID SUBMISSION AND OPENING:** Bids must be submitted electronically via the City of Costa Mesa's PlanetBids portal before the deadline of **2:00 P.M., Tuesday, July 27, 2021**, at which time or shortly thereafter the City Clerk will open bids electronically. The bid results will be posted online via PlanetBids. No paper bids or any other form of submittal will be accepted. Any bid received after the scheduled closing time for the receipt of bids will be rejected. The City is not responsible for and accepts no liability in the event a response is late due to any network, internet, or any other technical difficulty or interruption. It shall be the sole responsibility of the bidder to ensure that his/her/its bid is received by the deadline.

To access the bid documents and bid on this project, potential vendors and bidders must first register through the City's PlanetBids portal at:

<https://www.planetbids.com/portal/portal.cfm?CompanyID=45476>.

2. **SCOPE OF WORK AND BID DOCUMENTS:** The scope of work generally consists of mobilization, removal and reconstruction of curb and gutters, sidewalks, driveway approaches, spandrels, cross gutters, and A.D.A. ramps; removal and reconstruction of existing pavement; milling and overlaying with new asphalt; adjustment of manholes and water valves to grades; procurement and application of Slurry Seal Type II with 2.5% latex, crack sealing; notifications to businesses and residents; traffic signing; striping and markings; installation of pavement markers; and implementing traffic control.

The plans, specifications, and bid documents for this project can be obtained via the City's PlanetBids portal at: <https://www.planetbids.com/portal/portal.cfm?CompanyID=45476>.

It is the bidder's responsibility to ensure that the most current version of the solicitation, including any addenda, has been downloaded. Bids received without the applicable addenda will be rejected as incomplete.

3. **PRE-BID MEETING OR JOB WALK:** None.
4. **BID CONTENTS:** All bids must be submitted on the proposal form included in the bid documents. No bid will be considered unless it is made on the proposal form furnished by the City and made in accordance with the provisions of the bid requirements.
5. **BID SECURITY:** Each bidder must submit a certified check, cashier's check, or a bid bond, made payable to or in favor of the City of Costa Mesa, in an amount equal to at least ten percent (10%) of the total amount of the bid, to the Costa Mesa City Clerk prior to the bid submission deadline. No bid will be considered unless such certified check, cashier's check, or bid bond is received by the City Clerk prior to the bid submission deadline.
6. **CONTRACTOR'S LICENSE:** A valid **California Contractor's License Class "A" (General Engineering Contractor)** issued by the California Contractors State License Board is required at the time the contract is awarded pursuant to California Public Contract Code section 3300. Each bidder must also be qualified as required by law at the time of the bid opening.

7. **REGISTRATION WITH THE DEPARTMENT OF INDUSTRIAL RELATIONS:** Pursuant to Labor Code sections 1725.5 and 1771.1, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work unless registered and qualified pursuant to Labor Code section 1725.5.
8. **PREVAILING WAGES:** This project is a “public work” subject to prevailing wage requirements. Pursuant to provisions of Sections 1770 et seq. of the California Labor Code, all works employed on the project shall be paid not less than the general prevailing rate of per diem wages, as determined by the Director of the Department of Industrial Relations (DIR) for work of a similar character in the locality in which the work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. Copies of the prevailing rate of per diem wages are on file with Costa Mesa Public Services Department and are available to any interested party upon request. The applicable State prevailing wages are also set forth on the Department of Industrial Relations’ website: <http://www.dir.ca.gov>; these rates are subject to predetermined increases. The prime contractor shall post a copy of the DIR’s determination of the prevailing rate of per diem wages at each job site. This project is subject to compliance monitoring and enforcement by the DIR.
9. **PAYMENT BOND AND PERFORMANCE BOND:** A Payment Bond and a Performance Bond, each in the amount of 100% of the contract amount, will be required of the successful bidder prior to award of the contract.
10. **RETENTION:** The City withholds five percent (5%) of each progress payment as retention. Pursuant to Public Contract Code section 22300, the successful bidder may substitute certain securities for money withheld by the City to ensure performance of the contract. At the request and expense of the contractor, securities equivalent to the amount withheld shall be deposited with the public agency, or with a state or federally chartered bank in this state as the escrow agent, who shall then pay those moneys to the contractor. Securities will be returned to the contractor upon satisfactory completion of the contract.
11. **NON-DISCRIMINATION:** The bidding process and contract are subject to State and Federal non-discrimination requirements, including but not limited to the requirement that no person or business shall discriminate on the basis of race, color, national origin, ancestry, religious creed, physical disability, mental disability, medical condition, marital status, sex, gender, gender expression, gender identity, sexual orientation, age, or military or veteran status in its solicitation, selection, hiring, or treatment of individuals or businesses in connection with the bidding process or work performed for the City in connection with the project.
12. **CITY’S RIGHT TO REJECT BIDS:** The City of Costa Mesa reserves the right, in its sole discretion, to reject any or all bids, or to waive any minor irregularities or informalities in any bid.
13. **ADDITIONAL REQUIREMENTS:** This project is subject to local, State, and Federal regulations and requirements, as detailed in the bid documents.

For all inquiries, please contact Administrative Secretary: Janet Zuazo, Public Services Department, via e-mail at janet.zuazo@costamesaca.gov.

Brenda Green, City Clerk
City of Costa Mesa
Dated: June 23, 2021

INFORMATION FOR BIDDERS

1. **PREPARATION OF BID FORM:** The City of Costa Mesa (City) requires that bids be submitted on the proposal available on *PlanetBids* at such time and place as is stated in the Notice Inviting Bids. All information requested in the bid forms must be provided. All bids shall be submitted electronically via the City's public bidding platform, *PlanetBids* **only**. No other form of submittal shall be accepted. It is the sole responsibility of the Bidder to see that his bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be **rejected**. Each Bidder is responsible for acknowledging all addenda.
2. **QUALIFICATION OF BIDDERS:** Each Bidder shall submit a list of Construction Project References indicating Public Works and/or similar construction projects completed or in progress within the last 24 months. Forms for this purpose are furnished with the bid package.
3. **BID SECURITY / BID BOND:** Each bid shall be accompanied by one of the following: cash, cashier's check made payable to the City, a certified check made payable to the City, or a Bidder's Bond executed by an admitted surety insurer, made payable to the City, in an amount not less than 10% of the maximum amount of the bid. This original bid security / bid bond must be submitted to the City Clerk's Office *at least one hour **prior*** to the bid submission deadline. Any and all **late** submittals of the bid security / bid bond **shall** be rejected, and it is the bidder's responsibility, *not* the delivery service, to ensure said bid security / bid bond is delivered timely to the City Clerk's office. The Bidder's Bond shall be signed by both, the Bidder and the Surety; and both signatures shall be notarized. The bid security shall be given as a guarantee that the Bidder, if awarded the work, shall execute the contract in conformity with the Contract Documents and shall provide the surety bond or bonds as specified therein within fourteen (14) calendar days after a written Notice of Intent to Award Contract is deposited in the mail. In the case of refusal or failure to enter into said contract, the check or bond, as the case may be, shall be forfeited to the City.
4. **NONCOLLUSION AFFIDAVIT:** Each bid shall be accompanied by a notarized Noncollusion Affidavit on a form which is included in the Contract Documents.
5. **SIGNATURE:** Via the *PlanetBids* platform, the bid must be *electronically* or *digitally* signed in the name of the Bidder and must be person or persons duly authorized to sign the bid on behalf of the Bidder.
6. **CORRECTIONS:** Any corrections made to the submitted bid must be made electronically via *PlanetBids*.
7. **DELIVERY OF PROPOSAL:** Proposals shall be submitted electronically via PlanetBids: <https://www.planetbids.com/portal/portal.cfm?CompanyID=45476>. No other form of submittal shall be accepted by the City.
8. **BID DEPOSIT RETURN:** Deposits of three of more low bidders, the number being at the discretion of the City, will be held for sixty (60) calendar days or until posting by the successful bidder of the Bonds and Certificates of Insurance required and

return of executed copies of the Agreement, whichever first occurs, at which time the deposits will be returned.

9. TAXES: No mention shall be made in the proposal of Sales Tax, Use Tax or any other tax, as all amounts bid will be deemed and held to include any such taxes which may be applicable.
10. WITHDRAWAL OF BIDS: Any bidder may withdraw his bid either personally, by written request, or by telegraphic request confirmed in the manner specified above at any time prior to the scheduled closing time for receipt of bids.
11. AGREEMENT AND BONDS: The Agreement form, which the successful bidder, as Contractor, will be required to execute, and the forms and amounts of surety bonds and Certificate of Insurance which he will be required to furnish prior to the execution of the Agreement, are included in the Contract Documents and should be carefully examined by the Bidder. The successful Bidder will be required to submit **THREE (3)** executed copies of the Agreement, the Performance Bond, the Payment Bond and the Certificate of Insurance. Payment and performance bonds shall be issued by a surety who is listed in the latest revision of U.S. Department of Treasury Circular 570 and Code of Civil Procedure Section 995.120. The Performance Bond and the Payment Bond shall be signed by both, the Bidder and the Surety; and both signatures shall be notarized.
12. FORFEITURE FOR FAILURE TO POST SECURITY AND EXECUTE AGREEMENT: In the event the Bidder to whom the Notice of Intent to Award Contract is given fails or refuses to post the required bonds and Certificate of Insurance and return executed copies of the Agreement within fourteen (14) calendar days after notification, the City may declare the Bidder's bid deposit or bond forfeited as damages caused by the failure of the bidder to post such security and execute such copies of the Agreement, and may give Notice of Intent to Award Contract to the next lowest responsive and responsible bidder, or may call for new bids.
13. BIDDERS INTERESTED IN MORE THAN ONE BID: No person, firm or corporation shall be allowed to make, or file or be interested in more than one bid for the same work unless alternate bids are specifically called for.
14. EXAMINATION OF SITE AND CONTRACT DOCUMENTS: Each bidder shall visit the site of the proposed work and fully acquaint himself with the conditions relating to the construction and labor so that he may fully understand the facilities, difficulties, and restrictions attending the execution of the work under the contract. Bidders shall thoroughly examine and be familiar with the drawings and specifications. The failure or omission of any bidder to receive or examine any contract document, form, instrument, addendum, or other document or to visit the site and acquaint himself with conditions there existing shall in no way relieve any bidder from any obligation with respect to his bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section.

15. INTERPRETATION OF PLANS AND DOCUMENTS: If any Bidder contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the drawings, specifications, or other Contract Documents, or finds discrepancies in, or omissions from the drawings and specifications, it may submit to the Engineer a written request for an interpretation or correction thereof. The Bidder submitting the Request for Interpretation (RFI) shall be responsible for its prompt delivery and on the form included within this IFB (Page B-6) Any interpretation or correction of the Contract Documents will be made only by addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of the Contract Documents. No person is authorized to make any oral interpretation of any provision in the Contract Documents to any Bidder, and no Bidder is authorized to rely on any such unauthorized oral interpretation.
16. ADDENDA: The effect of all addenda to the Contract Documents shall be considered in the bid package and said addenda shall be made part of the Contract Documents and shall be returned with the bid package. Failure to submit any such addenda with the bid package may render the bid irregular and result in its rejection by the City.
17. QUESTIONS TO THE ENGINEER: Questions regarding the bid documents (i.e. Plans, Specifications, Contract Documents, Bid Forms, etc.) will be received by the Engineer up to five (5) working days prior to the bid opening as specified in the Notice Inviting Bids. Questions asked of the Engineer after this time will not be addressed.
18. EQUIVALENT MATERIALS: Requests for the use of equivalents to those specified, must be submitted to the City. Only substitutions approved prior to bid due date via addenda Product Substitutions, will be considered. No substitutions will be considered after bid due date and contract award. It is the sole responsibility of the successful bidder to prove to the City that such a material is truly an equivalent.
19. EVIDENCE OF RESPONSIBILITY: Upon the request of the City, a bidder whose bid is under consideration for the award of the contract shall submit promptly to the City satisfactory evidence showing the Bidder's financial resources, its construction experience, and its organization and plant facilities available for the performance of the contract.
20. LEGAL RESPONSIBILITIES: All proposals must be submitted, filed, made and executed in accordance with State and Federal laws relating to bids for contracts of this nature whether the same or expressly referred to herein or not. Any Bidder submitting a proposal shall by such action thereby agree to each and all of the terms, conditions, provisions and requirements set forth, contemplated and referred to in the Plans, Specifications and other Contract Documents, and to full compliance therewith. Additionally, any Bidder submitting a proposal shall, by such action thereby, agree to pay at least the minimum prevailing per diem wages as provided in Section 1773, et. seq. of the Labor Code for each craft, classification or type of workman required as set forth by the Director of Industrial Relations of the State of California.

21. ANTI-DISCRIMINATION: It is the policy of the City that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, sex, age, or marital status. The Contractor agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment Practice Act, beginning with Government Code Section 12900, and Labor Code Section 1735. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by him/her.

22. DRUG-FREE WORKPLACE POLICY: Contractor, upon notification of contract award, shall establish a Drug-Free Awareness Program to inform employees of the dangers of drug abuse in the workplace, the penalties that may be imposed upon employees for drug abuse violations occurring in the workplace, and the employee assistance programs available to employees. Each employee engaged in the performance of a City contract must be notified of this Drug-Free Awareness Program, and must abide by its terms. Contractor shall conform to all the requirements of City's Policy No. 100-5. Failure to establish a program, notify employees, or inform the City of a drug-related workplace conviction will constitute a material breach of contract and cause for immediate termination of the contract by the City.

23. BID PROTEST PROCEDURES: Any bid protest must be submitted in writing before 5:00 PM of the 5th business day following bid openings. The initial protest document shall contain a complete statement of the basis for the protest. The protest shall refer to the specific portion of the document which forms the basis for the protest. The protest shall include the name, address and telephone number of the person representing the protesting party. The party filing the protest shall concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest. Upon receipt of a bid protest, the matter shall be reviewed by the Public Services Director, whose decision shall be final. This procedure supersedes the procedure of appeal outlined in City of Costa Mesa Municipal Code Section 2-303.

24. ASSEMBLY BILL 626: Assembly Bill 626 (AB 626), adds section 9204 to the Public Contract Code creating a claims resolution process applicable to any claim (as defined) by a contractor against a public entity filed in connection with a public works project. Section 9204 applies to public works contracts entered into on and after January 1, 2017. The legislation was supposed to sunset (end) on January 1, 2020, unless extended by subsequent legislation. The summary of Section 9204 is specified as follows:

In the event of any dispute or controversy with the City over any matter whatsoever, the Contractor shall not cause any delay or cessation in or of Work, but shall proceed with the performance of the Work in dispute. The Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. The Disputed Work will be categorized as an "unresolved dispute" and

payment, if any, shall be as later determined by agreement or a court of law. The Contractor shall keep accurate, detailed records of all Disputed Work, claims and other disputed matters.

All claims arising out of or related to the Contract Documents or this Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 et seq.) with regard to filing claims. All such claims are also subject to the dispute procedures set forth in Public Contract Code Section 9204 and Public Contract Code Section 20104, et seq. (Article 1.5), to the extent each is applicable. This Contract hereby incorporates those provisions as through fully set forth herein. Thus, the Contractor or any Subcontractor must file a claim in accordance with the Government Claims Act as a prerequisite to filing a construction claim in compliance with Section 9204 and Section 20104 et seq. (if applicable), and must then adhere to Section 20104, et seq. and Section 9204, as applicable, pursuant to the definition of "claim" as individually defined therein.

REQUEST FOR INTERPRETATION OF CONTRACT DOCUMENTS

Date: _____

Time: _____

Company: _____

Contact Person: _____

Address: _____

Telephone: _____

FAX: _____

Plan Sheet: _____

Specification Section:

INTERPRETATION REQUESTED:

REPLY: _____

T0 A/E: _____

SECTION C
PROPOSAL
FOR THE
PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL
PROJECT, CITY PROJECT NO. 21-03

The Honorable City Council
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92626

Dear Council Members:

In compliance with the NOTICE INVITING BIDS FOR THE **PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT, CITY PROJECT NO. 21-03**, a copy which is hereto attached, the undersigned has carefully examined the location of the proposed Work, the Plans, Specifications and other Contract Documents and is therefore satisfied as to the conditions to be encountered, as to the character, quality and quantity of work to be performed and materials to be furnished and as to the requirements of the specifications and the Contract. It is mutually agreed that the submission of a proposal shall be considered prima facie evidence that the BIDDER has made such examination.

If awarded the Contract, the undersigned agrees to commence the Work under the Contract **WITHIN TEN (10) WORKING DAYS AFTER DATE OF CONTRACT, AND COMPLETE SAID WORK WITHIN ONE HUNDRED (100) WORKING DAYS** from the first day of commencement of such work unless legal extension is granted in accordance with the terms set forth in the specifications, and to perform and complete the Work as shown on the Plans and in accordance with the Specifications and other Contract Documents, and to furnish all labor, materials, tools and equipment necessary to complete the Work in-place therefor, in the manner and time herein prescribed at the following prices, to wit:

BID SCHEDULE PROPOSAL					
ITEM #	BID ITEM DESCRIPTION	APPROX. QTY.	UNIT	UNIT PRICE (in figures)	ITEMS TOTAL (in figures)
1	Mobilization and Project Scheduling	1	L.S.	\$	\$
2	Additional Work Items	1	F.A.	\$ 100,000	\$ 100,000
3	Temporary Traffic Control	1	L.S.	\$	\$
4	Install Lane Markings, Striping Pavement Legends, and Raised Pavement Markers (RPM)	1	L.S.	\$	\$
<u>Phase I: Parkway Concrete:</u>					
5	Remove & Reconstruct Concrete Sidewalk (4-inch Concrete over 4-inch C.M.B.) including ADA ramps	11,500	S.F.		
6	Remove Existing and Reconstruct C-6 Curb & Gutter over 6" CMB with 2' A.C. Slot Pave	5,500	L.F.		
7	Remove Existing and Reconstruct C-8 Curb & Gutter over 6" CMB with 2' A.C. Slot Pave	550	L.F.		
8	Remove & Reconstruct P.C.C. Cross-Gutter, Spandrel, Local Depression, and P.C.C. Pad (8" Concrete over 8" inch C.M.B) with 3' A.C. Slot Pave	2,600	S.F.		
9	Remove Existing and Reconstruct P.C.C. Driveway Approach (6-inch Concrete over 6-inch C.M.B)	650	S.F.		
10	Remove & Reconstruct Miscellaneous AC Pavement	55	TONS		
11	Paint Curb Existing Color	120	L.F.		
12	Root Prune and Install Root Barrier	700	L.F.		
13	Install Truncated Domes (ADA ramps)	16	EA		
<u>Phase II: Street Rehabilitation:</u>					
14	Cold Mill (2-inch Minimum Depth)	265,000	S.F.		
15	Remove & Reconstruct Asphalt Concrete (A.C.) 6-inch Minimum Depth, including Excavation	1,100	TONS		
16	Type "B" Asphalt Concrete (A.C.) Base Course (Paving Machine)	1,320	TONS		
17	Type "D" Asphalt Concrete (A.C.) Leveling Course (Paving Machine)	1,100	TONS		
18	Type "C" Asphalt Concrete (A.C.) Overlay (Paving Machine) – Surface Course	9,700	TONS		

BID SCHEDULE PROPOSAL (Continued)					
ITEM #	BID ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE (in figures)	ITEMS TOTAL (in figures)
19	Install "Mirafi® 600X" Subgrade Fabric or Approved Equal	16,500	S.F.		
20	Install "PETROMAT®" Fabric or Approved Equal	167,000	S.F.		
21	Install Blue Raised Pavement Markers (BRPM)	80	EA		
22	Adjust and Reset Existing Survey Monuments and Ties per California Licensed Land Surveyor	50	EA		
23	Adjust Manhole Covers to Grade	85	EA		
24	Adjust Water Valves to Grade	65	EA		
Phase III: Slurry Seal:					
25	Slurry Seal Type II with 2.5% Latex	1,000	ELT		
26	Crack Seal	1	L.S.		
TOTAL BID PROPOSAL FIGURES:				<div style="border: 1px solid black; padding: 5px; display: inline-block;">\$</div>	
TOTAL BID PROPOSAL (Words):					
<div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px;"></div>					

The award of the Contract shall be based on the lowest responsive Bid amount, and the City reserves the right to delete one or more bid items and/or to increase and/or to decrease bid items' quantities.

The CITY also reserves the right to reject all Bids.

Bidder's Initials

**PROPOSAL BID SCHEDULE
(CONTINUED)**

NOTES:

1. The accuracy of estimate quantities as shown is not guaranteed; the Bidder shall make his/her own estimate from the drawings and field review for verification. If the unit price and the total amount are different, the unit price will control the bid. Payment shall be based on actual work done and/or actual quantities used.
2. The City reserves the right to delete one or more bid items and/or to increase or decrease bid items' quantities, at no additional cost to the City.
3. FA designates force account. Payment shall be made on a time and materials basis, only if directed by the ENGINEER.
4. (F) Designates Final Pay Item. When an item of work is designated as "FINAL PAY ITEM" in the Specifications, the estimated quantity for that item of work shall be the final pay quantity, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions. If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

The estimated quantity for each item of work designated as "FINAL PAY ITEM" in the Specifications, shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the Engineer's Estimate for a final pay item and the quantity or summation of quantities for the same item shown on the plans, payment will be based on the quantity shown in the Engineer's Estimate.

5. Bidder declares that it has read and understands Items 14 & 15 of Information for Bidders (Page B-2 and B-3).
6. Bidder agrees to initial or notarize (if applicable) all pages on P-1, P-1a, P-1b, and P1-c and uploaded onto *PlanetBids*.

Bidder's Initials

PROPOSAL SCHEDULE
(CONTINUED)

(Please Type or Print)

Total Amount for Base Bid (in written words) _____

_____ (\$ _____) _____
in figures

Contractor's Lawful Name: _____

Bidder's Name: _____ Bidder's Initials: _____

Contractor's License No. _____ Expiration: _____

Contractor's Taxpayer I.D. Number: _____

Contractor's DIR Registration Number: _____

Signature: _____ Date: _____

Contractor's Address: _____

Telephone Number: (_____) _____ Mobile No.: (_____) _____

Fax Number: (_____) _____ E-mail: _____

24-Hour Emergency Contacts:

_____ Name	Telephone Number: (_____) _____
_____ Name	Mobile No.: (_____) _____
_____ Name	Telephone No.: (_____) _____
_____ Name	Mobile No.: (_____) _____
_____ Name	Telephone No.: (_____) _____
_____ Name	Mobile No.: (_____) _____

Bidder's Initials

**PROPOSAL SCHEDULE
(CONTINUED)**

The Contractor agrees that the City will not be held responsible if any of the approximate quantities shown in the foregoing proposal shall be found incorrect, and he shall not make any claim for damages or for loss of profits because of a difference between the quantities of the various classes of work as estimated and the work actually done. If any error, omission or misstatements shall be discovered in the estimated quantities, it shall not invalidate this contract or release the Contractor from the execution and completion of the whole or part of the work herein specified, in accordance with the specifications and the plans herein mentioned and the prices herein agreed upon and fixed therefore, or excuse him from any of the obligations or liabilities hereunder, or entitle him to any damages or compensation otherwise than as provided for in this contract.

The Contractor agrees that the City shall have the right to increase or decrease the quantity of any bid item or portion of the work or to omit portions of the work as may be deemed necessary or expedient, and that the payment for incidental items or work, not separately provided in the proposal shall be considered included in the price bid for other various items or work.

Accompanying this proposal is "Cash," "Certified Check," or "Bidder's Bond" (circle one) in the amount of _____ (\$_____) equal to at least ten (10%) percent of the total bid price, payable to the City of Costa Mesa, to guarantee that within fourteen (14) days after written notice is deposited in the mail, or the bidder has received notice by telephone, the bidder will furnish proper Certificates of Insurance, and required bonds satisfactory to the City and execute a contract in accordance with the proposal and in the manner and form required by the contract documents.

The undersigned deposits the above-named security as a proposal guarantee and agrees that it shall be forfeited to the City of Costa Mesa as Liquidated Damages if the above requirements are not complied with.

Bidder's Initials

Respectfully Submitted,

Contractor's Business Name		
Business Address: Street		
City	State	Zip
Business Phone Number		
Name		Title
City	State	Zip

Contractor	Title
Singed By	Title
Contractor's License No. and Classification	Exp. Date
Date	
Residence: Street	
Residence phone Number	

If the bid is by a corporation, state the names of the officers who can sign an agreement on behalf of the corporation and whether more than one officer must sign.

<input type="checkbox"/> Corporation	Taxpayer I.D. Number: _____	
	Can Sign	Must Sign
Name _____	<input type="checkbox"/>	<input type="checkbox"/>
Name _____	<input type="checkbox"/>	<input type="checkbox"/>
Name _____	<input type="checkbox"/>	<input type="checkbox"/>

If the bid is by a partnership or a joint venture, state the names and addresses of all general partners and joint ventures.

<input type="checkbox"/> Partnership or Joint Ventures	Taxpayer I.D. Number: _____
Name _____	
Address _____	
Name _____	
Address _____	

If the bidder is a sole proprietorship or another entity that does business under a fictitious name, the bid shall be in the real name of the bidder with a designation following showing "DBA (the fictitious name)"; provided, however, no fictitious name shall be used unless there is a current registration with the Orange County Recorder.

The full names and residences of all persons and parties interested in the foregoing proposal, as principals, are as follows:

NOTE: Give first and last names in full; in case of corporation, give names of President, Secretary, Treasurer and Manager, and affix corporate seal; in case of partnerships and joint ventures, give names of all the individual members.

Bidder's Initials

DESIGNATION OF SUBCONTRACTORS

In compliance with the "Subletting and Subcontracting Fair Practices Act" being Sections 4100-4113 of the Public Contract Code of the State of California, and any amendments thereto, each bidder shall set forth below the name and location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement in an amount in excess of one-half ($\frac{1}{2}$) of one percent (1%) of the prime contractor's total bid or in the case of bids for the construction of streets or highways, including bridges, in excess of one-half ($\frac{1}{2}$) of one percent (1%) of the prime contractor's total bid or ten thousand (\$10,000) dollars, whichever is greater. Bidder shall further set forth the portion of the work, which will be done by each such subcontractor with its Department of Industrial Relations (DIR) registration number. Only one subcontractor for each such portion shall be listed.

If the contractor fails to specify a subcontractor for any portion of the work to be performed under the contract, he/she/it shall be deemed to have agreed to perform the balance of all work, which is not covered, and he/she/it shall not be permitted to subcontract that portion of the work except under the conditions hereinafter set forth.

Subletting or subcontracting of any portion of the work to which no subcontractor was designated in the original bid, shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the Legislative Body of the Owner.

All information must be filled out and typed. Please use additional pages in this format if needed.

<i>Bid Item (s) Number</i>	<i>% Portion of Work</i>	<i>Name, Address and E-mail of Subcontractor</i>	<i>State License Number</i>	<i>Class</i>	<i>DIR Registration Number</i>

By submission of this proposal, the Bidder certifies:

1. That (I)(we)(it) is able to and will perform the balance of all work which is not covered in the above subcontractors listing.
2. That the AGENCY will be furnished copies of all subcontracts entered into by subcontractor for this project.

Bidder's Initials

BIDDER'S BOND TO ACCOMPANY PROPOSAL

(Required if the bidder desires to submit bond instead of a certified or cashier's check.)

KNOW ALL PEOPLE BY THESE PRESENTS:

That we, _____ as principals, and _____ as surety, are held and firmly bound unto the City of Costa Mesa, a municipal corporation, organized under the laws of the State of California and situated in Orange County in the sum of _____ (\$_____) to be paid to the City, its successors and assigns, for which payment well and truly to be made, we bind ourselves, our heirs, executors, and administrators, successors or assigns, jointly and severally firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH,

That is the certain proposal of the above bounden, _____, if accepted by the City of Costa Mesa, and if the above bounden, _____, his heirs, executors, administrators, successors and assigns, shall duly enter into and execute a contract for such construction, and shall execute and deliver the CERTIFICATE OF INSURANCE and the LABOR AND MATERIAL and the FAITHFUL PERFORMANCE BONDS described within fourteen (14) days from the date of the mailing of a notice of the above bounden, _____, by and from the City, that said contract is ready for execution, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

IN WITNESS WHEREOF:

We hereunto set our hands and seals this _____ day of _____, 20__.

Contractor/ Principal
(Notary Acknowledgement to be attached)

Surety/Power of Attorney
(Notary Acknowledgment to be attached)

Bidder's Initials

CONTRACT ASSURANCE

The CONTRACTOR or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The CONTRACTOR shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the CONTRACTOR to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as recipient deems appropriate.

The CONTRACTOR will require that the above provision is included in all subcontracts.

Bidder's Initials

NONCOLLUSION AFFIDAVIT

The bidders, by its officers and agents or representatives present at the time of filing this bid, being duly sworn on their oaths say, that neither they nor any of them have in any way directly or indirectly entered into any arrangement or agreement with any other bidder, or with any public officer of such CITY OF COSTA MESA whereby such affiant or affiants or either of them has paid or is to pay to such bidder or public officer any sum of money, or has given or is to give to such other bidder or public officer anything of value whatever, or such affiant or affiants or either of them has not directly or indirectly, entered into any arrangement or agreement with any other bidder or bidders, which tends to or does lessen or destroy free competition in the letting of the contract sought for on the attached bids; that no bid has been accepted from any subcontractor or supplier through any bid depository, the By-Laws, Rules, or Regulations of which prohibit or prevent the Contractor from considering any bid from any subcontractor or supplier which is not processed through said bid depository, or which prevent any subcontractor or supplier from bidding to any Contractor who does not use the facilities or accept bids from or through such bid depository; that bidder has not bid as subcontractor to other bidders; that no inducement of any form or character other than that which appears upon the face of the bid will be suggested, offered, paid or delivered to any person of the contract, nor has this bidder any agreement or understanding of any kind whatsoever, with any person whomsoever to pay, deliver to, or share with any other person in any way or manner, any of the proceeds of the contracts sought by this bid.

Contractor Firm Name

Name of Principal

Title

Signature

Subscribed and sworn to before me by:

This ____ day of _____, 20____.

My Commission Expires: _____

Notary Public

Bidder's Initials

**CONTRACTOR'S CERTIFICATION
OF
WORKERS' COMPENSATION INSURANCE REQUIREMENTS
FOR
PUBLIC WORKS PROJECTS
(Labor Code §1861)**

I am aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract.

Dated: _____

CONTRACTOR

Company Name

PROJECT: CITYWIDE PARKWAY MAINTENANCE, STREET REHABILITATION,
AND SLURRY SEAL PROJECT, CITY PROJECT NO. 21-03

Bidder's Initials

DRUG-FREE WORKPLACE POLICY

CONTRACTOR, upon notification of contract award, shall establish a Drug-Free Awareness Program to inform employees of the dangers of drug abuse in the workplace, the penalties that may be imposed upon employees for drug abuse violations occurring in the workplace, and the employee assistance programs available to employees. Each employee engaged in the performance of a CITY contract must be notified of this Drug-Free Awareness Program, and must abide by its terms. Failure to establish a program, notify employees, or inform CITY of a drug-related workplace conviction will constitute a material breach of contract and cause for immediate termination of the contract by CITY.

CONTRACTOR shall conform to all the requirements of CITY'S Policy No. 100-5. A copy of this policy is attached to the sample contract agreement as an attachment in the Project Specifications.

Bidder's Initials



**BIDDER/APPLICANT/CONTRACTOR CAMPAIGN
CONTRIBUTION DISCLOSURE FORM**

Proposer/Consultant/Applicant is required to identify any campaign contribution or cumulative contributions greater than \$249 to any city council member in the twelve months prior to submitting an application, proposal, statement of qualifications or bid requiring approval by the City Council.

Date	Name of Donor	Company/Business Affiliation	Name of Recipient	Amount

Except as described above, I/we have not made any campaign contribution in the amount of \$250 or more to any Costa Mesa City Council Member in the twelve months preceding this Application/Proposal.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Bidder/Applicant/Proposer

Date

Bidder's Initials

SECTION D GENERAL PROVISIONS

PART 1

SECTION 1 – GENERAL

1-2 GENERAL

[Add the following:].

Except as hereinafter provided, the provisions of the latest edition of the Standard Specifications for Public Works Construction ("Green Book"), and all amendments thereto, adopted by the Joint Cooperative Committee of Southern California Chapter, American Public Works Association, Southern California District and Associated Contractors of California; hereinafter referred to as Standard Specifications, are adopted as the "Standard Specifications of the City of Costa Mesa" and shall be considered as a part of these specifications. Copies of the Standard Specifications are available from the publisher:

*BNi Building News
1612 S. Clementine Street
Anaheim, California 92802
(714) 517-0971*

Where specified in these specifications, the latest edition of the California Building Code, based on the latest edition of the International Building Code, the latest edition of the "Standard Specifications and Standard Plans of the State of California, Department of Transportation, Division of Highways," "Standard Plans of the Orange County Environmental Management Agency," and "Los Angeles County Flood Control District, Design Manual, Standard Drawings" shall apply or unless otherwise noted in these specifications or at the direction of the ENGINEER.

Where referenced in these Specifications, the latest edition of the "City of Costa Mesa Standard Drawings" and the "Work Area Traffic Control Handbook (WATCH)" published by Building News, Inc., shall also apply.

The section numbers of these General Provisions coincide with those of the said Standard Specifications. Only those sections requiring amendment, elaboration, or specifying options, are called out.

The following modifications are made to the "Standard Specifications." If there is a conflict between the "Standard Specifications" and these modifications, these modifications shall have first precedence.

1-2 TERMS AND DEFINITIONS

[Add or redefine the following:].

- | | |
|---------------------------------|--|
| (a) AGENCY | The City of Costa Mesa, California, hereinafter referred to as "CITY." |
| (b) BOARD | The City Council of the City of Costa Mesa, California, hereinafter referred to as "BOARD." |
| (c) CONTRACT DOCUMENTS | Documents including but not limited to the following: The proposal form P-1 through P-9b, Notice Inviting Bids, Standard Specifications, General Provisions, Special Provisions, Plans, Bonds, Insurance Certificates, Agreement, and all Addenda setting forth any modifications of the documents as further specified in contract agreement. |
| (d) ENGINEER | The administrating officer of the City of Costa Mesa or his authorized representative hereinafter referred to as ENGINEER. |
| (e) BIDDER | Any individual, firm, partnership, corporation, or combination thereof, submitting a bid proposal for the work contemplated in the contract documents, acting directly or through a duly authorized representative, hereinafter referred to as BIDDER. |
| (f) LEGAL ADDRESS OF CONTRACTOR | The legal address of the Contractor shall be the address given on the Contractor's bid and is hereby designated as the place to which all notices, letters or other communications to the Contractor shall be mailed or delivered. |
| (g) LABORATORY | An established laboratory approved and authorized by the ENGINEER for testing materials and work involved in the contract. |

1-3 ABBREVIATIONS

- | | |
|--------------|---|
| CALTRANS | State of California, Department of Transportation, Division of Highways |
| O.C.E.M.A. | Orange County Environmental Management Agency |
| L.A.C.F.C.D. | Los Angeles County Flood Control District |

1-6 BIDDING AND SUBMISSION OF THE BID

1-6.1 General

[Add the following:].

Proposal shall be made and submitted on proposal forms P-1 through P-9a in accordance with the Notice Inviting Bids. In addition to the required signatures in the spaces provided in the proposal forms, each BIDDER shall initial each sheet of the proposal forms at the bottom right hand corner.

No person, firm, partnership, corporation, or combination thereof shall be allowed to make or file or be interested in more than one bid for the same work, unless alternate bids are called for. A person, firm, partnership, corporation, or combination thereof who has submitted a sub-proposal to a BIDDER or who has quoted prices on materials to a BIDDER is not thereby disqualified from submitting a sub-proposal to or quoting prices to the other bidders. If, on the opening of bids, more than one bid appears in which the same person, firm, partnership, corporation or combination thereof is interested as a principal, all such bids shall be rejected.

Proposals with interlineations, alterations, or erasures shall be initialed by the BIDDER'S authorized agent. Alternative proposals, special conditions, or other limitations or provisions affecting the bid, except as such called for in the contract documents, will render the bid informal and may cause its rejection.

All proposals must give the prices bid for the various items of work and must be signed by the BIDDER, who shall give his address. Each bid shall have thereon the affidavit of the BIDDER that such bid is genuine and not sham nor collusive, nor made in the interest nor behalf of any other person not therein named and that the BIDDER has not directly nor indirectly induced or solicited any other BIDDER to put in a sham bid, nor induced nor solicited any person, firm, partnership, corporation, or combination thereof to refrain from bidding, and that the BIDDER has not in any manner sought by collusion to secure himself an advantage over any other BIDDER.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5 of the Labor Code. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

1-6.1.1 Request for Interpretation

If any person contemplating submitting a bid is in doubt as to the meaning of any part of the Plans, Specification, or other proposed Contract Documents, or finds discrepancies in, or omissions from the drawings or specifications, (It, he, she) may make a request to the ENGINEER, in writing, for an interpretation or correction thereof pursuant to the provisions in the Information for Bidders section of these specifications. The person

submitting such a request shall be responsible for its prompt delivery. All such interpretations of the Contract Documents will be made only by addenda duly issued, and a copy of each such addendum will be mailed or delivered to each person receiving a set of Contract Documents at (its, his, her) last address of record. The CITY will not be responsible for any other explanations or interpretations of the Contract Documents.

1-6.1.2 Soil Conditions

The BIDDER shall inspect the soil conditions before submitting a bid. By submitting a bid, the BIDDER acknowledges that he is satisfied with the quality of the work area including but not restricted to the conditions affecting, handling and storage of materials, disposal of excess materials, and the soil conditions.

1-6.1.3 Return of Bid Security

Any BIDDER may withdraw its bid, either personally, or by telegraphic or written request, at any time prior to the scheduled closing time for the receipt of bids. It is the sole responsibility of the BIDDER to see that any such telegraphic or written request is delivered to the City Clerk prior to said closing time. Bid security of such BIDDERS will be returned promptly to the BIDDER.

The bid security of the BIDDER whose bid is accepted will be held by the CITY until the contract has been executed and the accompanying insurance certificates, performance bond and labor and materials bond are approved and filed, whereupon the bid security will then be returned to the BIDDER.

The bid security of the second and third lowest BIDDERS will be retained until the contract is awarded to and executed by the BIDDER whose bid is accepted, or until 45 days after the opening of bids, whichever period is shorter. The bid security of all BIDDERS other than the three lowest will be returned promptly after the opening of bids.

If a BIDDER fails or refuses promptly to execute the agreement to do the work or fails or refuses to comply with insurance and bonding requirements, the bid security shall be forfeited to the CITY and shall be collected and paid into the General Fund of the CITY.

1-6.2 Subcontractor Listing

[Add the following:].

The ENGINEER, as duly authorized officer, may consent to subcontractor substitution requested by the Contractor subject to the limitations and notices prescribed in Section 4107 of the Public Contract Code.

1-7 AWARD AND EXECUTION OF THE CONTRACT

1-7.1 General

[Add the following:].

The award of contract, if awarded, will be to the lowest responsive and responsible bidder whose proposal complies with all requirements of the Notice Inviting Bids and Section 1-6 of these specifications. The BIDDER, upon notification as the "apparent low bidder," shall comply with the CITY'S insurance and bonding requirements by submitting the required insurance certificates and bonds within **fourteen (14) days after the mailing of a Notice of Award to the BIDDER that the contract is ready for execution**. The contract will be awarded within thirty (30) days of receipt of properly approved insurance certificates and bonds pursuant to CITY requirements spelled out in these specifications. BIDDER must take particular note of "insurance requirements" contained in these specifications and sample agreement included within the contract documents, and should provide that information to his insurance broker in order that a properly executed certificate is submitted. The CITY, however, reserves the right to reject any or all bids and to waive any informality in the bids received.

1-7.1.1 Execution of Agreement

The Agreement shall be signed by the successful BIDDER and returned to the CITY no later than **fourteen (14) days from Notice of Award** of the Contract by the CITY. Failure to comply with insurance and bonding requirements as specified in the Agreement and in Section 1-7.1 of these General Provisions shall be considered grounds for the revocation and rejection of the bid and forfeiture of bid security. No proposal shall be considered binding upon the CITY until the execution of the agreement by the CITY. In case of conflict, the agreement shall have precedence over all other written specifications.

1-7.2 Contract Bonds

[Add the following:].

The "Faithful Performance Bond" and the "Labor and Material Bond" as specified in this section shall be for one hundred percent (100%) of the Contract price. The Labor and Material Bond shall be maintained by the Contractor in full force and effect for at least seven (7) months following the filing of the Notice of Completion. The Faithful Performance Bond shall also be kept by the Contractor in full force and effect for at least one (1) year following the filing of the Notice of Completion.

CONTRACTOR shall provide the following:

A certified copy of the certificate of authority of the surety issued by the Insurance Commissioner.

A certificate from the clerk of the county in which the court or officer is located that the certificate of authority of the surety has not been surrendered, revoked, canceled, annulled, or suspended or, in the event that it has, that renewed authority has been granted.

Copies of the surety's most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10 (commencing with Section 900) of Chapter 1 of Part 2 of Division 1 of the Insurance Code.

SECTION 2 – SCOPE OF THE WORK

2-1 WORK TO BE DONE

[Replace in its entirety with the following:].

The Work to be performed consists of, but is not limited to: mobilization; clearing and grubbing; saw-cutting, removal and reconstruction of sidewalks, curb and gutters, driveway/driveway approaches, spandrel, cross gutters and ADA ramps; removal and reconstruction of existing pavement; milling and overlaying with new asphalt; adjustment of manholes and water valves to grades; procurement and application of Slurry Seal Type II with 2.5% latex, crack sealing; notifications to businesses and residents; signing; striping; traffic control; and all other work as required as shown on the Plans and specified within these Contract Documents. The CONTRACTOR shall furnish all labor, materials, tools, equipment and incidentals necessary to perform and complete the Work as shown on the Plans and these Contract Documents, and to the satisfaction of the ENGINEER.

2-2 PERMITS

[Add the following:].

All permits and licenses shall be obtained in sufficient time to prevent delays to the work.

In the event that the CITY has obtained permits, licenses or other authorizations applicable to the work, the Contractor shall comply with the provisions of said permits, licenses and other authorizations.

- The Contractor is directed to Appendix 'C' - Caltrans Encroachment Permit and shall pay the permit fee, obtain the double permit rider, and comply with the conditions of said permit.

2-5 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

2-5.1 General

[Add the following:].

The Contractor shall only use the proper construction equipment to protect the City streets from breaking up and deterioration. Haul trucks shall be limited to a gross vehicle weight of 10 tons or less.

2-5.2 Temporary Utility Services

[Add the following:].

The Contractor shall provide for his employees an adequate supply of clean, potable drinking water, which shall be dispensed through approved sanitary facilities.

If water is needed during construction, Contractor shall contact Mesa Consolidated Water District or the Irvine Ranch Water District to obtain necessary permits, instructions, and meters prior to commencing work. The Contractor is required to make any and all necessary installations and connections. All water shall be metered. The Contractor shall pay for all deposits and fees involved.

2-5.4 Haul Routes

[Add the following:].

In order to protect the City streets from deterioration due to hauling of materials, the Contractor shall submit to the ENGINEER (at the pre-construction meeting) for approval, a proposed route for the hauling of materials for disposal. Upon approval, the Contractor shall strictly adhere to that route only, unless written permission from the ENGINEER is obtained to change the route.

Waste Hauler Requirements

The California Green Building Standards Code, 2016 Edition, California Code of Regulations, Title 24, Part 11, impacting waste diversion as documented in the City of Costa Mesa's Municipal Code Chapter 4 of Title 8, requires that all construction and demolition related projects divert 65% of project waste generated from the landfill. Consequently, permitted building projects relating to construction and demolition, newly constructed buildings, additions, alterations, interior and exterior demolitions, etc., are required to divert a minimum of 65% of nonhazardous construction and demolition waste from the landfill by recycling, reuse, or salvage. Generally, these materials include brick, drywall, other masonry, cardboard, green waste, paper, carpet, lumber, plastic, concrete, and/or metals. Asphalt, concrete, excavated soil and land-clearing debris should be 100% diverted from disposal. The County provides a suggested list of locations that are meeting and/or exceeding the 65% diversion requirement and may be used for recycling construction and demolition material.

The City of Costa Mesa requires that all hauling activity in Costa Mesa comply with one of the waste hauling options for your construction and demolition related project:

- Use Franchise Waste Hauler
- Self-Haul Permit - <https://www.costamesaca.gov/city-hall/city-departments/public-services/waste-collection-and-recycling>

A Construction and Demolition Reporting Form as provided in the Miscellaneous Document Section of these Specifications must be completed and submitted by the Contractor to the CITY prior to the release of retention monies.

2-7 CHANGES INITATED BY THE AGENCY

2-7.1 GENERAL

[Add the following:].

ENGINEER shall be the duly authorized officer of the CITY who may grant the changes prescribed in this section.

2-8 EXTRA WORK

[Add the following:].

The extra work as defined in this section of the Standard Specifications and any work done by the Contractor beyond the lines and grades shown on the plans shall only be performed when ordered in writing by the ENGINEER. In absence of such written order, any such work by the Contractor shall be considered unauthorized and will not be paid. Work so done may be ordered to be removed at the Contractor's expense.

2-9 CHANGED CONDITIONS

[Add the following:].

The Contractor shall promptly act to supply all information to the ENGINEER for proper evaluation. Failure to do so shall constitute a waiver of any payment for delays suffered by the Contractor.

SECTION 3 – CONTROL OF THE WORK

3-1 ASSIGNMENT

[Replace the 1st sentence with the following:].

No contract or portion thereof may be assigned without written consent of the BOARD.

3-4 AUTHORITY OF THE BOARD AND THE ENGINEER

[Add the following:].

When any of the various units or operations of the work have been suspended, the Contractor shall give at least 24 hours advance notice of the time when he or his subcontractor will start or resume any of such units or operations. That notice is to be given during working hours, exclusive of Saturdays, Sundays or holidays, for the purpose of permitting the ENGINEER to make necessary assignments to his representative on the work.

Any work performed in conflict with said notice, without the presence or approval of the ENGINEER, or work covered up without notice, approval or consent may be rejected or ordered to be uncovered for examination at Contractor's expense and shall be removed at Contractor's expense, if so ordered by the ENGINEER or his representative on the work. Any unauthorized or defective work, defective material or workmanship or any unfaithful or imperfect work that may be discovered before the final payment and final acceptance of work shall be corrected immediately by the Contractor without extra charge even though it may have been overlooked in previous inspections and estimates or may have been caused due to failure to inspect the work.

All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made on any plan or drawing by the Contractor after the same has been approved by the ENGINEER, except by direction of the ENGINEER in writing. Deviations from the approved plans, as may be required by critical conditions of construction, must be authorized in writing by the ENGINEER.

All instructions, rulings and decisions of the ENGINEER shall be in writing and are binding on all parties unless a formal protest is made as provided in the following paragraph:

If the Contractor considers any work demanded of him to be outside the requirements of the contract, or if he considers any instruction, ruling or decision of the ENGINEER or ENGINEER'S representative to be unfair, the Contractor shall, within ten (10) days after any such demand is made, or instruction, ruling or decision is given, file a written protest with the ENGINEER, stating clearly and in detail his objections and reasons therefor. Except for such protests and objections as are made of record, in the manner and within the time above stated, the Contractor shall be deemed to have waived and does hereby waive all claims for extra work, damages and extensions of time on account of demands, instructions, rulings and decisions of the ENGINEER.

Upon receipt of any such protest from the Contractor, the ENGINEER shall review the demand, instruction, ruling or decision objected to and shall promptly advise the Contractor, in writing, of his final decision, which shall be binding on all parties, unless within the ten (10) days thereafter the Contractor shall file with the BOARD a formal protest against said decision of the ENGINEER. The BOARD shall consider and render a final decision on any such protest within thirty (30) days of receipt of same. If the BOARD fails to consider and render a final decision on any such protest within thirty (30) days of receipt of the same, the protest shall be deemed denied.

3-5 INSPECTION

[Add the following:].

If the Contractor requests and receives approval from the ENGINEER to receive inspection services from the CITY outside of a normal eight (8) hour day/forty (40) hour work week or on Saturday, Sunday, or CITY holidays, the Contractor shall arrange with the CITY and ENGINEER for the special inspection services and Contractor shall pay for such special inspection services at a fee established by the ENGINEER to defray the cost for such service.

All work, which has been inspected and deemed defective in its construction or does not meet all of the requirements of the plans and/or specifications by the ENGINEER shall be remedied, or removed and replaced by the Contractor in an acceptable manner, and no compensation will be allowed for such correction.

Any work done beyond the limits of the lines and grades shown on the plans or established by the ENGINEER or extra work done without written authority will be considered as unauthorized and not be paid.

Upon failure on the part of the Contractor to comply with any order of the ENGINEER made under the provisions of this article, the ENGINEER shall have authority to cause

defective work to be remedied, or removed and replaced, and unauthorized work to be removed, and to deduct the costs and thereof from any monies due or to come due the Contractor.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside the limits of the project. No compensation will be allowed for disposing of rejected or excess material.

3-6 THE CONTRACTOR'S REPRESENTATIVE

[Add the following:].

Contractor shall file with the ENGINEER the addresses and telephone numbers where its designated representative may be reached during hours when the work is not in progress.

Instructions and information given by the ENGINEER to the Contractor's authorized representative or at the address or telephone numbers filed in accordance with this section shall be considered as having been given to the Contractor.

The Contractor shall have on the work site at all times a competent English-speaking superintendent, as his agent, capable of reading and thoroughly understanding the plans and specifications and other related documents.

3-7 CONTRACT DOCUMENTS

3-7.1 General

[Add the following:].

Contractor will obtain from the ENGINEER, free of charge, copies of plans, general provisions, special provisions and additions to the Standard Specifications that are reasonably necessary for the execution of work.

Contractor shall, at its own expense, obtain copies of the Standard Specifications and Standard Plans and Specifications of CALTRANS, for his general use.

If after the Contract is awarded it appears that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained in the specifications and plans, the Contractor shall apply to the ENGINEER for such further explanations as may be necessary and shall conform to such explanation or interpretation as part of the Contract.

All scaled dimensions are approximate. Before proceeding with the work, the Contractor shall carefully check and verify all dimensions and quantities and shall immediately inform the ENGINEER or his representative of any discrepancies.

3-10 SURVEYING

[Replace with the following:].

3-10.1 General

The Contractor will perform and be responsible for the accuracy of setting all required survey stakes adequate for the construction of the project.

3-10.3 Line and Grade

Unless otherwise provided in the Special Provisions, lines and grades for construction shall be the responsibility of the Contractor, with the following provisions:

All work under this Contract shall be built in accordance with the lines and grades shown on the plans. Field survey for establishing the lines and grades and for the control of construction shall be the responsibility of the Contractor. All such surveys, including construction staking, shall be under the supervision of a California-licensed land surveyor or by a California-licensed civil engineer allowed by law. Staking shall be performed on all items ordinarily requiring grade and alignment, at intervals normally accepted by the agencies and the trade involved.

The Contractor shall provide a copy of the office calculations and grade sheets to the City Inspector. The Contractor shall be responsible for any error in the finished work and shall notify the ENGINEER within one (1) working day of any discrepancies or design errors discovered during staking.

Unless a separate bid item is provided, the payment for surveying, construction staking, professional services, office calculations, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be considered as included in the various items of work, and no additional compensation will be allowed.

3-12 WORK SITE MAINTENANCE

3-12.1 General

[Replace 2nd paragraph with the following:].

Unless the construction dictates otherwise, and unless otherwise approved by the ENGINEER, Contractor shall furnish and operate a self-loading motor sweeper with a functional water spray nozzle system at least once each working day to keep paved areas in the Work zone and along all haul routes acceptably clean whenever construction, including restoration, is incomplete.

3-12.2 Air Pollution Control

[Add the following:].

Failure of the Contractor to comply with the ENGINEER'S dust control orders may result in an order to suspend work until the condition is corrected and, after giving notice to the Contractor, the ENGINEER may order the condition corrected by others. All costs thus incurred shall be deducted from the amount to be paid to Contractor. No additional compensation will be allowed as a result of such suspension.

No separate payment will be made for any work performed nor material used to control dust resulting from Contractor's performance of the work or from public traffic, either inside or outside the right-of-way. Full compensation for such dust control will be considered to be included in the prices paid for the various items of Work involved.

3-12.4.1 General

[Add the following:].

All surplus materials shall be removed from the site of the Work within five (5) days after completion of the Work causing the surplus materials.

3-12.6 Water Pollution Control

3-12.6.1 General

[Add the following:].

Discharge of storm water from construction sites that disturb land equal to or greater than one (1) acre must be in compliance with the state General Construction Activity Permit (Construction Permit). The latest permit provisions of the Construction Permit shall apply. The Contractor is required to contact the Santa Ana Regional Water Quality Control Board (Regional Board) for all information contained in the Construction Permit. In the event project construction occurs during the transition of revised Construction Permits, the Contractor shall incorporate the necessary modifications specified by the revised Construction Permit within the time period specified in the new Construction Permit.

Project Soil Disturbance is: **less than 1 acre** (No General Construction Permit required)

Construction activity subject to the Construction Permit includes clearing, grading, disturbance to the ground such as stockpiling, work area, or excavation that results in soil disturbances of at least one acre of total land area. Construction activity that results in soil disturbances of less than one acre is subject to the Construction Permit if the construction activity is a part of a larger common plan of development that encompasses one or more acres of soil disturbance or if it is determined that discharges from the project pose a significant threat to water quality.

The CONTRACTOR shall have an account with the State for SMARTS (Storm Water Multiple Application and Report Tracking System). The CONTRACTOR shall contact the

CITY with their user ID so that the CITY will grant the CONTRACTOR access as a Data Submitter.

The CONTRACTOR shall complete the NOI within SMARTS <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp> The CONTRACTOR will notify the CITY when the NOI is ready for the CITY to submit to the State. The CONTRACTOR shall pay all fees associated with the NOI process. The CONTRACTOR shall also complete all required reports within SMARTS as required by the General Permit and the Project's Storm Water Pollution Prevention Plan (SWPPP).

The CONTRACTOR shall complete the Annual Report and NOT within SMARTS. Once the CITY has been notified, the CITY will review and submit to the State for processing. A copy of the latest permit is available at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

The CONTRACTOR is hereby directed to read the Construction Permit thoroughly and comply with the requirements as specified therein.

3-12.6.2 Best Management Practices (BMPs)

[Add the following:].

The Contractor shall install and maintain the appropriate Best Management Practices (BMPs) to protect water quality within the project limits through the duration of the Project.

The Contractor shall be responsible for any damage to any portion of the Work occasioned by failure to provide proper drainage control prior to the completion and acceptance of the Work.

Payment for furnishing, installing and maintaining BMPs inclusive of sweeping the Project site as required or directed by the ENGINEER shall be included in the other various bid items associated with the work and no additional payment will be allowed thereof.

3-12.6.3 Storm Water Pollution Prevention Plan (SWPPP)

[Add the following:].

If a General Construction Permit is required pursuant to Section 3-12.6.1 of these General Provisions, the following Storm Water Pollution Prevention Plan (SWPPP) requirements shall be adhered to:

The Contractor is responsible for the preparation and implementation of a SWPPP as required by the Construction Permit. The Contractor is responsible for completing all parts of the SWPPP including, REAPs, monitoring, sampling, rain gauge records, weather reports, submitting pictures of every third storm, non-authorized discharge reports, Ad-Hoc reports, Annual Reports, post construction BMPs and other requirements of the SWPPP.

The completed SWPPP must be signed by a QSD (Qualified SWPPP Developer). The completed SWPPP must be submitted to the resident engineer for City review and acceptance, prior to uploading to SMARTS. The Contractor will be responsible for uploading an electronic format of the SWPPP into SMARTS. The SWPPP must be signed by the City before construction begins. A copy of the SWPPP must be available at the site at all times and must be implemented and revised in accordance with the Construction Permit throughout the duration of the project.

Contractor must have QSP (Qualified SWPPP Practitioner). Contractor shall perform site inspections before and after the storm event, and once each 24-hour period during extended storm event, to identify BMP effectiveness and implement repairs or BMP modifications as soon as possible. Sampling of potential pollutant discharges shall be conducted by trained personnel and required laboratory test conducted by laboratory accredited by the California Department of Health Services Environmental Laboratory Accreditation Program.

Contractor shall be responsible for any penalties assessed against the City if the penalty assessed is due to Contractor's violation of the Construction Permit requirement, or Contractor's failure to fully implement and monitor SWPPP as required.

Erosion and Sediment Control Plans

Erosion and Sediment Control Plans shall be prepared by the Contractor as part of the SWPPP that identify adequate controls to prevent erosion and discharge of sediment off-site. Payment for the Erosion and Sediment Control Plans shall be included as part of the SWPPP.

3-12.6.4 Dewatering

[Add the following:].

Unless otherwise directed in these Special Provisions, the Contractor shall provide and maintain ample means and devices with which to promptly remove and properly dispose of water entering the excavations or other parts of the work at all times during construction. Dewatering shall be accomplished by methods which will ensure a dry excavation and preservation of the final lines and grades of the bottoms of excavations. The methods may include sump pumps, deep wells, well points, suitable rock or gravel placed below the required bedding for draining and pumping purposes, temporary pipelines, and other means.

Standby pumping equipment shall be on the job site. A minimum of one standby unit shall be available for immediate installation should any well unit fail. The design and installation of well points or deep wells shall be suitable for the accomplishment of the work. Drawings or details indicating the proposed dewatering system shall be submitted to the CITY for review.

The Contractor shall dispose of the water from the work in a suitable manner without damage to adjacent property.

Conveyance of the water shall be such as to not interfere with traffic flow or treatment facilities operations. No water shall be drained into work built or under construction without prior consent of the ENGINEER.

Water shall be disposed of in such a manner as not to be a menace to the public health and such disposal shall be performed in accordance with Environmental Protection Agency and State Water Quality Control Board standards (NPDES permit). Any testing and reports required under NPDES permit shall be performed by the Contractor and submitted to the appropriate agency for approval at no additional cost to the CITY.

3-13.3 WARRANTY

[Replace 2nd sentence of 1st paragraph with the following:].

The warranty period shall start on the date the Work is accepted by the Board.

SECTION 4 – CONTROL OF MATERIALS

4-4 TESTING

[Add the following:].

All tests of materials furnished by the Contractor shall be made in accordance with commonly recognized standards of national organizations and such special methods and tests as are prescribed in these specifications. No materials shall be used until they have been approved by the ENGINEER.

The Contractor shall at his expense furnish the CITY, in triplicate, certified copies of all required factory and mill test reports. Any materials shipped by the Contractor from a factory or mill prior to having satisfactorily passed such testing and inspection by a representative of the CITY shall not be incorporated in the work, unless the ENGINEER shall have notified the Contractor, in writing, that such testing and inspection will not be required.

At the option of the ENGINEER, the source of supply of each of the materials shall be approved by the ENGINEER before delivery is started and before such material is used in the work.

Unless otherwise provided in the Special Provisions, the CITY will complete and pay for the initial soils, compaction, and material tests. Any subsequent soil, compaction, and material tests deemed necessary due to the failure of initial tests will be at the Contractor's expense and deducted from the payment due.

SECTION 5 – LEGAL RELATIONS AND RESPOSIBILITIES

5-1 LAWS AND REGULATIONS

[Add the following:].

The Contractor shall protect and indemnify the CITY, the BOARD, the ENGINEER, and all of its or their officers, agents and servants against any claim or liability arising from or based on the violation of any existing or future State, Federal and local laws, ordinances, regulations, orders or decrees, whether by himself or his employees. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications or contract for the work in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the ENGINEER in writing.

5-2 SPECIAL NOTICES

[Add the following:].

In addition to the special notices requirement to be served by Personnel Delivery or Certified Mail, special notices may also be served by the utilization of FedEx or UPS express service with a confirmed delivery receipt. Service shall be effective on the date of the receipt of the delivery confirm issued by FedEx or UPS.

5-3 LABOR

5-3.3 Payroll Records

[Add the following:].

In order to verify compliance with the Labor Code, Contractor shall furnish to the ENGINEER, weekly, for the duration of the contract period, copies of his payroll statements showing wages paid to each employee during the preceding week and the employee work classification. Use of Form DH-C-347, Payroll Statement of Compliance, is an acceptable method of fulfilling the above requirement.

5-3.5 Apprentices

[Replace with the following:].

Attention is directed to the provisions of Sections 1777.5 and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under it. The Contractor and any subcontractor under it shall comply with the requirements of those Sections in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules and other requirements may be obtained from the Director of Industrial Relations, Ex-officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

5-4 INSURANCE

[Replace with the following:].

The minimum amounts and types of insurance coverages are as stated in the Agreement (sample copy attached). Prior to bid submittal the BIDDER shall keep fully informed of the latest insurance requirements of the City of Costa Mesa and shall comply with all other provisions of Section 5-4 of the Standard Specifications.

Below are approved endorsements which satisfy the basic insurance requirements contained in contracts entered into by City of Costa Mesa. These have been approved by the City Attorney's office. The terms of any specific contract with the City are controlling. Prior to the commencement of any work, the CITY requires that the ENGINEER receive Certificates of Insurance in **DUPLICATE** for liability coverage of at least \$1,000,000 combined single limit, per occurrence and in the aggregate.

Each insurance policy required by the CITY of the Contractor shall contain the following endorsements:

1. Additional Insureds

"The City of Costa Mesa and its elected and appointed boards, officers, agents, and employees are additional insureds with respect to the subject project and agreement."

2. Notice

"Said policy shall not terminate, nor shall it be canceled nor the coverage reduced, until thirty (30) days after written notice is given to City."

3. Other Insurance

"Any other insurance maintained by the City of Costa Mesa shall be excess and not contributing with the insurance provided by this policy."

If any of such policies provide for a deductible or self-insured retention to provide such coverage, the amount of such deductible or self-insured retention shall be approved in advance by City. No policy of insurance issued as to which the City is an additional insured shall contain a provision which requires that no insured except the named insured can satisfy any such deductible or self-insured retention.

5-7 SAFETY

5-7.1 Work Site Safety

5-7.1.1 General

[Add the following:].

Material or other obstructions shall not be placed within fifteen feet (15') of fire hydrants. Fire hydrants shall be made readily accessible to the Fire Department at all times.

5-7.8 Steel Plate Covers

5-7.8.1 General

[Add the following:].

All steel plate covers utilized for the project must be slide resistant. A non-slip coating will be required on the side of the steel plate that that will be utilized for the driving or walking surface.

SECTION 6 – PROSECUTION AND PROGRESS OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

6-1.1 Construction Schedule

[Replace the 1st Paragraph with the following:].

The Contractor's proposed Construction Work Schedule shall be submitted to the ENGINEER for approval within ten (10) working days after the date of the BOARD's execution of the Contract Agreement. The Construction Work Schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered. The Construction Work Schedule shall provide sufficient detail to delineate the main milestones start and end dates for each activity with chronological relationships of all the activities of Work showing the number of working days required to complete the entire project within the Contract Days. The schedule shall also incorporate the requirements of Section 402-5 of the Standard Specifications to complete the Work within the Contract Days. Prior to issuing the Notice to Proceed, the ENGINEER will schedule a preconstruction meeting with the Contractor to review the proposed Construction Work Schedule, delivery dates, activity milestone dates, arrange utility coordination, discuss construction methods and staging, and clarify inspection procedures.

The Contractor shall submit progress reports to the ENGINEER by the tenth day of each month. The report shall include an updated Construction Work Schedule. All revisions shall be completed within three days after review by the ENGINEER. The Contractor shall submit requests for changes in the schedule to the CITY for approval at least three (3) working days prior to performing any work. Any deviations from the original approved Construction Work Schedule shall be explained and identified in the updated Construction Work Schedule. Progress payments will be withheld pending receipt of any outstanding reports.

The Contractor shall furnish the ENGINEER with a 3-week look ahead-schedule in a tabular format at every weekly construction meeting. The 3-week look ahead schedule shall utilize the main milestones within the approved Baseline Construction Schedule with updates and include sub-activities.

[Add the following:].

6-1.3 DAILY REPORT SUBMITTAL

Contractor shall submit daily reports to the CITY at the end of each working day. All forms shall be provided by the CITY. Any cost for this item shall be included in the various items of work and no other compensation will be allowed.

6-3 TIME OF COMPLETION

6-3.1 General

[Replace the 1st Sentence with the following:].

The Contractor shall begin the Work within **ten (10) Working Days** after the date the Contract is executed by CITY unless a later start date is agreed upon by the CITY and Contractor within a written Notice-to-Proceed. The Work shall be completed within **ONE-HUNDRED (100) Working Days** from the date set in the Notice-to-Proceed or the first day of commencement of Work, whichever occurs first.

6-5 USE OF IMPROVEMENT DURING CONSTRUCTION

[Add the following:].

Should it become necessary, due to developed conditions, to occupy any portion of the Work before Contract is fully completed, such occupancy shall not constitute acceptance by the CITY of work by Contractor.

6-7 TERMINATION OF THE CONTRACT FOR DEFAULT

6-7.3 Notice of Termination for Default

[Replace the 1st Paragraph with the following:].

The ENGINEER will make the determination if the Contractor had failed to commence satisfactory corrective action within 5 working days after the receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, and will take action as allowed by the Contract Documents.

6-7.4 RESPONSIBILITIES OF SURETY

[Add the following:].

Within 3 working days of receipt of the written notice of termination for default, the Surety shall provide the services needed to maintain the project in accordance with the Contract Documents. The services shall maintain the existing traffic control in place and the maintenance of the project site until the Engineer's review and acceptance of the Surety's plan for course of action.

6-9 LIQUIDATED DAMAGES

[Replace the 1ST Paragraph with the following:].

The CONTRACTOR shall pay to the CITY the sum of **\$8,100** per calendar day, for each and every calendar day's delay in finishing the Work in excess of the number of Working Days prescribed within these General Provisions and the Agreement, or per the direction of the Engineer. Liquidated damages are calculated per Chapter 12 of the latest edition of the Caltrans Local Assistance Procedures Manual (LAPM).

SECTION 7 – MEASUREMENT AND PAYMENT

7-3 PAYMENT

7-3.1 General

[Replace the 1ST Paragraph with the following:].

Payment for the various items listed on the Bid Proposal, as further specified herein, shall constitute full compensation to the Contractor for furnishing all material, tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of Work and as specified and shown on the drawings, including all costs for compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor. No separate payment will be made for any item that is not specifically set forth in the Bid Proposal. Costs arising from violations of regulations will be paid by the offending party to the extent that there will be no additional cost to the CITY.

When no bid item is provided for work/improvement shown or indicated on the plans and specifications, payment for such work/improvement will be considered to be included in various applicable items of work.

7-3.2 Partial and Final Payment

[Replace the 1st Paragraph in its entirety with the following:].

The closure date for the purpose of making partial progress payments will be the last day of each month. The Contractor may request, in writing, that such monthly closure date be changed. The ENGINEER may approve such request when it is compatible with the CITY's payment procedure.

[Replace the 2nd Paragraph in its entirety with the following:].

Each month, the Contractor shall meet with the Engineer, a minimum of three (3) working days prior to the submittal of the progress payment to the AGENCY, to finalize and receive approval regarding the measurement of the Work performed through the closure date and the estimated value of the progress payment based on the Contract Unit Prices or as provided for in the Standard Specifications. Any progress payment submitted without such approval will be considered incomplete and returned to the Contractor and no

payment shall be considered until such approval is obtained.

[Replace the 3rd Paragraph in its entirety with the following:].

The amount retained and deducted by the BOARD shall be 5% of the progress estimates for all progress payments. No reduction in the amount of retention will be allowed. However, after 50% of the work has been completed, if the BOARD finds that satisfactory progress is being made, it may make any of the remaining progress payments in full for actual work completed. The final payment of the retention amount to the Contractor shall be made thirty-five (35) days after the date of the recording of the Notice of the Completion of the work after it is accepted by the CITY. The 5% withheld from each progress payment shall not include monies withheld for stop notices or other withholding by the CITY. The monies withheld for stop notice and other withholdings shall be in addition to the 5% withheld for retention.

[Add to end of Section the following:].

Contractor shall comply with the requirements of Division 2, Part 1, Chapter 7, Section 7107 of the California Public Contract Code.

The lead time for processing invoices for the monthly progress payments approved by the ENGINEER for inclusion on the warrant list of the CITY is governed by the rules and regulations established by the Finance Department of the CITY. Monthly payments will be processed and paid in accordance with the rules and regulations established or revised by the said Finance Department.

The Contractor shall submit all weight tickets or volumes of all materials used in the construction to the ENGINEER for checking and verification prior to any payment. Failure to do so will postpone the payment to the Contractor, until the matter is resolved satisfactorily.

The weight or volume from submitted tickets must correspond to the work done in the field; if not, the City shall reject the work without compensation to the Contractor, and/or the Contractor shall be directed to replace that work at no additional costs to the City.

After completion of the Contract, the BOARD shall, upon recommendation of the ENGINEER, accept the Work as completed and authorize the Final Payment.

The Final Payment shall be the entire sum found to be due the Contractor after deducting therefrom all previous payments and all amounts to be kept and all amounts to be retained under the provisions of the Contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

No certificate given or payment made under the Contract, except the final certificate or Final Payment, shall be conclusive evidence of full or substantial performance of this Contract; and no payment shall be construed to be an acceptance of any defective work or improper material.

The acceptance of Final Payment by the Contractor shall release the CITY, the BOARD,

and the ENGINEER from any and all claims or liabilities on account of work performed by the Contractor under the Contract or any alterations thereof.

The Contractor shall record, on the set of contract documents maintained at the job site, deviations which have been made from the Contract Documents or approved shop drawings – including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Contract Documents. Said record documents shall be supplemented by detailed sketches as necessary or directed, to indicate fully the work as actually constructed.

Requests for partial payments shall not be approved until the record documents are brought up to date. Also, request for final compensation shall not be approved until all the variations between the work as constructed and as originally shown in the Contract Documents have been properly recorded and delivered to the City, after approved by the Engineer.

[Add the following:].

7-3.2.1 Prompt Progress Payment to Subcontractors

Contractor shall comply with the requirements of Division 2, Part 1, Chapter 7, Section 7200 of the California Public Code.

The CONTRACTOR agrees to pay each subcontractor under this Agreement for satisfactory performance of its contract no later than 7 days from the receipt of each payment the CONTRACTOR receives from CITY.

The CONTRACTOR agrees further to release retainage payments to each subcontractor within 7 days after the retention payment is received by the CONTRACTOR.

Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the CITY. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. This clause applies to both DBE and non-DBE prime contractors and subcontractors.

City will be strictly monitoring the Contractor for prompt payment to all subcontractors.

[Add the following:].

7-3.2.2 Prompt Pay Monitoring and Enforcement of Progress Payments

The City of Costa Mesa will use the following monitoring and enforcement mechanisms to ensure that all subcontractors, including DBE's, are promptly paid.

- A. The City will strictly monitor the prime contractor or subcontractor(s) for prompt release of progress payments for all subcontracted work as follows:

1. The effective date of release is the date the City releases the check to the prime contractor by mailing or hand delivery at the City of Costa Mesa (has to be requested in writing ahead of time).
 2. Prime contractor or subcontractor(s) to provide verification in writing that the subcontracts have been paid within 7 days or the time period agreed, from the effective date of release.
 3. City may contact subcontractor(s) to confirm receipt of progress payment amount and if it was received within 7 days or the time period agreed from the effective date of release.
- B. If the prime contractor or subcontractor(s) is found to be in default of Federal or State Codes concerning prompt payment to subcontractors, City will enforce the following besides the disciplinary action, sanctions and penalties imposed per the codes:
1. City will withhold 150% of the monies due to the subcontractor(s) from the prime contractor's next progress payment.
 2. City may also elect to make the payment(s) directly to the subcontractor(s) without the prime contractor's approval for the remainder of the contract.

7-3.3 Delivered Materials

[Replace in its entirety with the following:].

The cost of materials and equipment delivered, but not incorporated in said work, will not be included in the progress payment estimate unless otherwise provided in these Specifications. All materials shall be nontoxic and shall not contain asbestos and hazardous substances as established by applicable laws.

Materials delivered, but not in place, will not be classed as work done, except as otherwise provided in these Specifications.

7-3.4 Mobilization

[Replace in its entirety with the following:].

Mobilization shall consist of all preparatory work and operations. It shall include, but not be limited to, the movement of personnel, equipment, materials and incidentals to the project site necessary for work on the project. The mobilization shall include all other work and operations, which must be performed.

Mobilization shall also include the time, materials, and labor to move the necessary construction equipment to and from the job site and the project administration costs during the entire contract period.

This work shall include, but not be limited to protect-in-place and/or relocation of the facility to accommodate the construction of an improvement; including resetting curb drains through new curbing.

The Contractor shall provide supervisory personnel to keep the construction site in a safe condition and all other related work as required at all times. These requirements shall also apply to all non-working days during construction period. The Contractor is responsible for securing an adequate storage site for equipment and materials.

The Contractor shall have on the work site at all times, as his agent, a competent English speaking superintendent capable of reading and thoroughly understanding the plans, specifications, and other related documents.

7-3.4.1 Travel Route for Trucking and Equipment

Plans indicating the travel route for the Contractor's equipment movement in and out of the work site must be submitted concurrently with the Haul Route Plan (Section 2-5.4) to the ENGINEER at the pre-construction meeting for approval prior to commencement of any work. The travel route plans, which meet the City's requirements, will be approved and returned to the Contractor; otherwise, further revisions are required until they are acceptable to the City. The approved travel plans shall be strictly adhered to by the Contractor during all phases of the construction.

Any deviation from these requirements is not permitted. All the Contractor's operations will be ceased at once if the Contractor violates any of these requirements. No further payments will be made to the Contractor until problems are resolved according the City's requirements.

7-3.4.2 Construction Sequence/Order of Work

In order to minimize the inconveniences to the residents and businesses, the contractor shall construct the Project and sequence the work where no two adjacent streets are closed at one time, and/or the nearest parking is no more than 300' from the intersection of the street being closed to traffic. The Contractor shall maintain adjacent streets open for ingress and egress and for parking.

7-4 PAYMENT FOR EXTRA WORK

7-4.2 Basis for Establishing Costs.

7-4.2.1 Labor

[Add the following:].

The compensation for employer's payments of payroll taxes; workers compensation insurance; liability insurance; health and welfare; pension; vacation; apprenticeship funds; other direct costs resulting from Federal, State, or local laws; and for assessments or benefits required by lawful collective bargaining agreements to be applied to the actual cost for wages shall be **23 percent** for regular time and overtime.

7-4.3 Markups

7-4.3.1 Work by the Contractor

[Replace in its entirety with the following:].

The allowance for overhead and profit to be added to the Contractor's costs shall be as follows:

Labor:	20%
Materials:	15%
Contractor Owned Equipment	15%
Equipment Rental	10%*
Other Items and Expenditures	10%

To the sum of the costs and markups provided for in this section, 1 percent shall be added as compensation for bonding.

* Equipment Rental rates shall be based on the latest applicable Caltrans Equipment Rental Rates.

7-4.3.2 Work by a Subcontractor

[Replace in its entirety with the following:].

When all or any part of the extra work is performed by a Subcontractor, the markup established in 7-4.3.1 shall be applied to the Subcontractor's actual cost of such work. A markup of ten (10) percent on the first \$5,000 of the subcontracted portion of the extra work and a markup of five (5) percent on work added in excess of \$5,000 of the subcontracted portion of the extra work may be added by the Contractor.

No markups will be allowed for second tier or higher subcontractors.

[Add the following:].

7-6 SUMMARY OF PUBLIC CONTRACT CODE § 9204

The following procedure will apply to any claims by the Contractor on the City:

A "claim" is a separate demand on the City by a contractor on a public works project and sent by registered mail or certified mail with return receipt requested, for one or more of the following:

- A time extension, including relief from penalties for delay
- Payment by the City of money damages under the terms of the contract
- Payment of an amount that is disputed by the City

Initial Review

The claim must be supported by appropriate documentation. The City has 45 days within which to review the claim and provide the contractor with a written statement identifying the disputed and undisputed portions of the claim. If the City does not issue a written

statement, the claim is deemed rejected in its entirety. The City will pay any undisputed portion of the claim within 60 days of issuing the statement.

Meet & Confer

If the contractor disputes the City's written response, or if the City does not issue one, the contractor may request in writing an informal conference to meet and confer for possible settlement of the claim. The City will schedule the meet and confer conference within 30 days of this request and provide a written statement identifying the remaining disputed and undisputed portions of the claim within 10 business days of the meet and confer. The City will pay the undisputed portion within 60 days of issuing this statement.

Mediation

With respect to any disputed portion remaining after the meet and confer, the City and contractor will submit the matter to nonbinding mediation, agree to a mediator within 10 business days after issuing the written statement, and share mediation costs equally. If mediation is unsuccessful, then the terms of the public works agreement and applicable law will govern resolution of the dispute.

Miscellaneous Provisions

Amounts not paid by the City in a timely manner bear interest at 7% per annum. Subcontractors may submit claims via this procedure through the general contractor. The City and contractor may waive the requirement to mediate, but cannot otherwise waive these claim procedures.

SECTION E
SPECIAL PROVISIONS
PART 1-8

[Add the following Section:].

PART 1
GENERAL

100-1 GENERAL

Additions/Modifications to Standard Specifications

The following additions are made to the latest edition of the “Standard Specifications for Public Works Construction” (The “Greenbook”), and the General Provisions stated within the “Standard Specifications” of this Project. Should there be a conflict between any of these provisions; the Special Provisions shall have precedence.

All work shall be performed in conformance with the latest edition of the Uniform Building Code as adopted by the City of Costa Mesa. The electrical, plumbing, and fire codes, and other regulations as adopted by the City of Costa Mesa Building Official shall apply to this project.

Where referenced in these specifications, the latest edition of the “City of Costa Mesa Standard Drawings” and the “Work Area Traffic Control Handbook (WATCH)” published by Building News, Inc., shall also apply.

If the item of work is identified within the Proposal section of these Specifications, then the following bid item descriptions will provide the corresponding bid item numbering within each corresponding section of the Standard Specifications under the Subsection entitled “Measurement and Payment” or “Payment”. All other sections and subsections shall conform to the Standard Specifications unless modified herein.

The unit prices and lump sum amounts to be paid for under the bid items listed in the Proposal shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the completion of the work and for performing all work contemplated and embraced under the Contract, in accordance with the Plans and Contract Documents. This shall include the Contractor's costs involved with bonding, insurance, worker's compensation, overhead, financing, obtaining required permits and permit fees, mobilization, traffic control, public convenience and safety, protective barricading/fencing, sanitary facilities, storage of equipment and materials, security against theft and vandalism, project site maintenance, dust and runoff control, clean-up

including all costs for compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration (OSHA) of the U. S. Department of Labor, .and all other items related to the work.

Payment for compliance with the following provisions shall be included in the various bid items of work unless otherwise modified in the special provisions section. No additional compensation will be allowed.

No separate payments will be made for any items that are not specifically set forth in the Bid Proposal. Payments for any such items are included in various bid items of work.

Costs arising from violations of regulations will be paid by the offending party to the extent that there will be no additional cost to the City.

Payment for unit price work shall be made for the actual quantities of Contract Items removed, constructed, or disposed of in accordance with the Plans and these Specifications. Measurement of Unit Price work shall be specified in the Standard Specifications, Section 7-1, "Measurement of Quantities for Unit Price Work." Payment for Lump Sum work shall be paid for at the price indicated in the Bid, in accordance with the Standard Specifications, Section 7-2, "Lump Sum Work."

Payment for all work shall be included in the various bid items. No additional compensation shall be made therefore. Work associated with each bid item shall include, but not be limited, to the bid descriptions set forth herein.

100-2 MOBILIZATION AND DEMOBILIZATION

100-2.1 General

Mobilization shall comply with Section 7-3.4 of the General Provisions.

100-2.2 Measurement and Payment

BID ITEM No. 1: MOBILIZATION AND PROJECT SCHEDULING

Measurement and Payment for Mobilization and Demobilization shall be included in the **Lump Sum (LS) Price** basis. It shall be considered full compensation for obtaining all business licenses and permits, as required for the entire project, from all related agencies, including, but not limited to, utility companies, private and public agencies and the CITY; and complying with the requirements specified in those licenses and permits; coordination, field office facility, all required submittals specified within these Specifications, and incidentals necessary to perform all related items of work. Progress

payments for Mobilization and Demobilization bid item shall be paid for in accordance with the completion percentage of the Project to the Contractor and shall include the cost of such mobilization/demobilization and administration during the entire Contract period. No additional compensation will be allowed.

Mobilization shall include compliance with water and air quality laws; maintaining dust control at all times; furnishing all water required for the construction work; protection of utilities, survey monuments, trees, fences, walls, landscaping and other facilities.

Mobilization shall include all related "de-mobilization" costs, including the removal of any remaining Underground Service Alert (USA) utility markings or other construction paint markings, by means of wet sand blasting or other pre-approved method on the sidewalk, curb/gutter and pavement.

Mobilization shall include all work shown on the plans, which is not compensated in a bid item of work. This work shall include, but not be limited to protect-in-place and/or relocations of the facility to accommodate the construction of an improvement, and removal of existing planters, trees, shrubs, and bushes.

The contractor shall confine his operations and work area to the street right-of-way and is responsible for securing an adequate storage site for equipment and materials. No encroachment into private property will be permitted without prior written consent of the property owner and Engineer. Obtaining this consent will be the responsibility and at the cost of the Contractor. The Contractor shall provide supervisory personnel to keep the construction site in a safe condition at all times.

The Contractor shall submit a Construction Schedule at least ten (10) working days prior to commencing work. All revisions shall be completed within three days after review by the Engineer. The Contractor shall submit requests for changes in the schedule to the City for approval at least three (3) working days prior to performing any work.

The Contractor is noted that this project is being coordinated with parkway concrete repair project, the asphalt paving project, and slurry seal project within the same project limits. The contractor to perform the work shall be the concrete contractor and upon completion of their work, the asphalt contractor will overlay or level the streets with asphalt concrete. Within minimum two weeks after the completion of the asphalt contractor's work, the slurry project will commence. The City reserves the right to include or exclude streets.

In order to minimize the inconveniences to the residents and businesses, the contractor shall construct the project and sequence the work where no two adjacent streets are closed at one time, and/or the nearest parking is no more than 300 feet from the intersection of the street being closed to traffic. The Contractor shall maintain adjacent streets open for ingress and egress and for parking. Approval of the staging and work

plan shall be at the discretion of the City.

No construction activities will be allowed on streets that are receiving trash pick-up or sweeping services on the same day. A copy of the CR&R Waste Collection Map will be available upon request. The Contractor shall coordinate with the trash hauler in preparing the construction schedule. The Contractor shall provide a map showing the schedule of the work, which should coordinate with the trash and mail schedule, to the City at the preconstruction meeting. Slurry seal application operations shall occur within two (2) days after scheduled trash pickup days.

100-3 CONTROL OF THE WORK

100-3.1 Water Pollution Control and Best Management Practices

Contractor shall follow the water pollution control and Best Management Practices (BMPs) guidelines enumerated in Section 3-12.6 of the "Standard Specifications for Public Works Construction" (The "Greenbook"), and also Section 3-12.6 of the General Provisions stated within the "Standard Specifications" of this Project and these contract bid documents.

100-4 ADDITIONAL WORK ITEMS

100-4.1 General

This work item entails work beyond the Scope of Work established within the Plans, Specifications, and Standard Specifications as directed by the ENGINEER with a specified Contract allowance

100-4.2 Measurement and Payment

BID ITEM No. 2: ADDITIONAL WORK ITEMS

At the direction of the ENGINEER, the Contractor shall provide labor, equipment, and materials for the project management beyond the Scope of Work established within the Project Plans and Specifications. Work **might** include, but not be limited to; delivery of additional newsletters; clearing and grubbing; disposal of materials; potholing; furnishing and installation of informational signs; and related work, and will only be performed if required, and approved by the ENGINEER. The Contractor acknowledges that this bid item will only be used at the discretion of the ENGINEER. The allowance for this line item is as shown within the Proposal Section of these Specifications.

Measurement and Payment for "**Additional Work Items**" shall be paid per **Force Account (F.A.)** for all work performed pursuant to Section 7-4.2 of these Specifications and shall, include all labor, equipment, materials as required to complete the work as directed by the ENGINEER.

PART 3

CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

[Add the following:].

300-0 EARTHWORK IN STATE RIGHT-OF-WAY

300-0.1 General

All earthworks performed within the State of California Department of Transportation ("Caltrans") Right-of-Way shall conform to the requirements of Section 19 of the latest edition of the "Standard Specifications and Standard Plans of the State of California, Department of Transportation, Division of Highways" with the appropriate Caltrans, City, and other applicable agency encroachment permits procured.

300-1 CLEARING AND GRUBBING

300-1.1 General

[Add or redefine the following:].

Section 300-1, "Clearing and Grubbing," of the Standard Specifications is supplemented by the following:

Contractor shall field verify existing grades and shall accept site as is, for no other grading shall be performed by the CITY.

- 300-1.3 Removal and Disposal of Materials
- 300-1.3.1 General

All materials removed shall be disposed of in a legal manner at an appropriate Disposal Site.

- 300-1.3.2 Requirements

A. *Bituminous Pavement*
Saw cutting of edges to be joined is required.

B. *Miscellaneous*
In addition to the work outlined in Section 300-1.1 of the Standard Specifications, the following items of work are included under Clearing & Grubbing unless otherwise covered by specific bid item.

1. Maintaining dust control at all times by watering during the entire time of the project, whether extended or not, including developing a water supply and furnishing and placing all water for all work done in the contract, including water used for extra work.
2. Application of soil sterilant, if applicable, or as directed by the ENGINEER.
3. Protection of utilities, structures, improvements and other facilities within the construction zone, except those specifically shown on the plans to be removed or relocated.
4. Removal and disposal of existing natural and artificial objectionable material within the limits of construction.
5. Verification of existing locations and elevations as shown on the plans or directed by the ENGINEER.
6. Replacement of disturbed traffic signs, street names, mailboxes, property owner signs, fences, landscaping, protection of temporary construction fences and all appurtenances, striping and markings as required to the satisfaction of the ENGINEER. Also, includes the installation of safe pedestrian pathway by installing orange netting or other approved method of safely directing pedestrians through a protected path.
7. This item shall also be interpreted to include the removal or relocation of any additional items in conflict with the proposed work not specifically mentioned herein or covered by specific bid item as directed in the field by the Engineer, which may be found within the work limits whether shown or not shown on the plans to be removed or relocated.
8. All surplus material three (3) inches or smaller shall be uniformly spread and compacted in the street sub grade. No material greater than three (3) inches in any dimension shall be used in the top twelve (12) inches of the sub grade. No nesting of rocks shall be allowed.
9. Unclassified fill shall consist of all fill unless separately designated. Construction of unclassified fill included preparing the area on which fill is to be placed, and the depositing, conditioning, and compaction of fill material.
10. Complete all demolition and removal work associated with the removal of AC, underlying PCC, PCC curb/gutter, as designated on the drawings for removal, unless otherwise defined.
11. Any structural or non-structural demolition work involved for the construction of the project and Contractor shall be responsible for disposing in a legal manner.
12. Determining and maintaining a straight edge in areas where AC joins existing edge of pavement.
13. No burning will be permitted.
14. No accumulation of flammable material shall remain on or adjacent to the right-of-way.

SECTION 302 – ROADWAY SURFACING

302-4 SLURRY SEAL SURFACING

[Add the following within each Subsection:].

302-4.1.1 PREPARATION OF EXISTING FOR SLURRY SEAL

Before applying slurry seal, the Contractor shall perform the following:

- Notices and No Parking postings. The contractor shall notify all the residents on any street that is impacted by the slurry seal operations by the end of the working day, on the Wednesday prior to slurry sealing the roadway. All operations for a Monday through Sunday work week shall have notices delivered by the prior Wednesday. The notice to each resident shall be on a format that is acceptable to the Engineer, with all contents of the notice being approved by the Engineer at least three weeks prior to having any slurry seal work performed. No Parking” signs are to be posted at least two working days prior to performing any slurry seal work.
- Plane all buckled pavement flush with existing adjacent pavement after the cleaning process.
- Remove all excess bitumen in bituminous pavement by burning or other method which is to be approved by Engineer.
- Clean all oil stained asphalt surfaces and apply “oil seal” produced by Industrial Asphalt or an approved equal to all oil stained surfaces prior to slurry application.
- Clean all loose materials, silt, vegetation, and other objectionable material on the existing surface by a method as specified or approved by the Engineer. The surface shall be free of water, dust, and foreign materials.
- Before construction starts, all cracks shall be sprayed with “Suppress Herbicide EC” a non-select organic weed and grass killer solution manufactured by Westbride Agricultural Products and a direct kill application (spectroicide) combination or approved equal. The contractor shall apply the organic weed and grass killer solution twice, at two (2) weeks apart from application. If a 3rd application is necessary, all cracks shall be sprayed with “Round-up”, a non-select weed and grass killer solution manufactured by Monsanto Company and a direct kill application (spectroicide) combination or approved equal for no additional cost to the City. The Contractor shall remove all weeds and vegetation fourteen (14) days after the chemical application or as recommended by the manufacturer. The Contractor shall assure that vegetation and weeds are completely eliminated.

- To facilitate inspection, the chemical solution shall be mixed with purple dye before spraying. The Contractor shall be directed to spray against those cracks – without purple color appearing – at no additional cost to the City before any construction.
- The weed and grass killer solution shall be applied at a rate as recommended by manufacturer.
- Sweep the surface with a rotary broom to remove all loose material.
- Clean thoroughly by using compressed air to blow out loose material, and then brush with a wire brush to remove more stubborn material from all depressions and cracks not reached by the rotary broom.
- Wash existing pavement; it must be damp but without water standing before slurry.
- May use alternate cleaning methods only with prior approval of the Engineer.
- Remove all existing raised pavement markers (RPM) including reflective markers.
- Remove by wet sandblasting, or by hand-operated grinder, all existing and/or visual striping and pavement markings prior to the application of the slurry seal. Temporary striping marking shall be placed and maintained until the final striping and markings are placed.
- Remove by hand-operated grinder all existing and/or visual thermoplastic markings including markings, striping, and crosswalks prior to the application of the slurry seal.
- Furnish and maintain temporary markings until the final striping and markings are placed.
- Immediately ahead of the mixer for slurry seal, pre-water the pavement by a pressure water distribution system equipped with a fog-type spray bar which will completely fog the surface of the pavement. The surface should be damp but with no free water standing in front of the slurry box.
- Cover any manholes, water valve covers, and brick and concrete crosswalks with heavy removable plastic cover materials to prevent the adhesion of construction materials.
- Remove the tape covering material from manholes, water valves, and brick and concrete crosswalks as soon as the slurry application is completed remove and clean any deposited construction materials on the surface of these exiting structures as soon as possible.

- Coordinate with the City's Fire Department and obtain their approval before starting any work.
- Be responsible for maintaining location of and access to, all waterline valves during construction.
- Restore traffic delineation prior to opening street to traffic.
- Use only reflective slurry tabs; Non-reflective slurry tabs will not be allowed.

302-4.1.2 OIL SEAL

All accumulation of oil and foreign materials shall be scraped and removed from the asphalt surface prior to the application of oil seal. Any fresh petroleum deposits should be dried using heat prior to application of oil seal.

Oil seal shall be applied per manufacturer's recommendations. Severity of the petroleum stain should dictate the amount of application. Oil seal should be brushed onto the stained surface insuring the total stain is well covered.

302-4.1.3 SLURRY SEAL TYPE II

Slurry seal material and construction shall conform to Sections 203 and 302-4 of the Green Book and the following additions and revisions.

Slurry shall be quickset emulsion aggregate slurry seal cationic (CQS---1h) and shall have an additive of latex. The latex shall be added at the emulsion plant after weighing the asphalt and before the addition of mixing water. The latex shall be added at a rate of 2.5% percent of the weight of the emulsified asphalt. The cost for the latex additive shall be included in the unit price for no additional cost to the City.

A final report for slurry mix design shall be submitted to the City for verification and all slurry mix design must be tested and approved by the specified laboratory prior to commencing work.

After mix proportions have been determined by the laboratory which has been approved by the City, the Contractor shall place one or more trial mixes either at the job site or at a location where small spreads of the slurry would not be objectionable.

The Contractor shall submit samples of aggregate, emulsion, retardant or accelerator, and the other required substances to the City to verify mix design submitted by the Contractor.

The cement mixing test will not be required for quickset cationic emulsion asphalt.

The aggregate bin shall be calibrated in 2-ton increments in order that an accurate estimate may be made of the amount of material used for each load. Prior to the beginning of slurry operations, the Contractor shall furnish, at no cost to the City, current licensed weighmaster's certificate indicating the net weight capacity of the aggregate bin.

The Contractor shall furnish calibrated vehicle weight scales at the stockpile site for use by the Agency. The portable scales will be utilized for inspection and all mixers shall be weighed prior to transit. All equipment and tools necessary for the field measurement of the emulsion and aggregate by the Agency shall be furnished and maintained by the Contractor.

The Contractor shall be responsible for the initial setup of the weigh scales at the stockpile site and all necessary relocations during slurry seal operations.

The Contractor shall apply the slurry using a minimum of two continuous mixers, one mixer to apply slurry with the other machine is in transit to and from the batch site. The Contractor shall provide a coordinator, at least one competent quickset man one competent driver for the mixer applying slurry, and one shuttle driver for the machine in route to reload. The Contractor shall also provide sufficient laborers for any hand work and clean up required to insure proper progress of work. Transit mix trucks shall not be used.

The spreader box shall be equipped with flexible material in contact with the pavement and shall be maintained so as to prevent loss of slurry outside the limits to be covered. It shall be adjustable to assure a uniform, controlled spread and shall be equipped with suitable drags that will erase ridges. It shall be mechanical or hydraulic type equipped with a steering device.

Prior to any change the Contractor shall thoroughly clean all emulsion tanks and mixing units to prevent any chemical reaction between the two emulsions.

Insofar as possible, slurry seal shall be applied to cul-de-sac areas and trees shaded areas in the early morning to allow proper curing.

Those areas that cannot be reached by regular spreading machine shall be spread by hand or by a small machine to completely cover those areas within the limitations of construction.

Sufficient water must be used to obtain a mix consistency that is smooth and homogeneous and does not segregate on standing. The water shall not exceed the content specified in the mix design.

Prior to the time of delivery of each shipment of asphalt emulsion, the Contractor shall

deliver to the City certified copies of the test report for that emulsion. The test report shall indicate the name of the vendor, type and grade of asphalt emulsion delivered, date and point of delivery, quantity delivered, delivery ticket number, purchase order number, and results of the specified tests. The test report shall be signed by an authorized representative of the vendor, shall certify that the product delivered conforms to the standard specifications and is compatible with the proposed aggregate for the type and grade indicated. In addition, samples of each shipment of asphalt emulsion shall be taken upon arrival at the job site and furnished to the Engineer; a minimum of three of those samples, more if deemed necessary, to be selected by the Engineer shall be tested for continued test reports, the testing required in connection with those reports and all additional testing shall be provided by the Contractor at no cost to the City.

No material from that shipment of asphalt emulsion shall be utilized or employed in performance of the work until the certified test reports and samples of the material have been furnished to, checked by, and verified by the Engineer.

If test results do not conform to the requirements of these special provisions, the unacceptable slurry seal shall be removed and replaced at the Contractor's expense. Continued application of slurry will not be allowed until it can be shown to the Engineer's satisfaction that the mix conforms to the approved mix design. The Contractor shall, at the direction of the Engineer, repair and reseal all areas of the streets which have not been sealed properly and completely. No extension of time will be allowed for delays due to repairs, resealing, or improper mix. Any additional tests required by the Engineer prior to continued slurry application and the additional slurry required to correct the previously rejected slurry application shall be at the Contractor's expense.

The approximate rate of application coverage shall be from 1/8" to approximately 3/8" maximum with a coverage of 3/16" desired. For bidding purposes, the Contractor shall assume the application rate of slurry shall be between 1,100 and 1,400 square feet per extra long ton.

The Contractor shall verify weather condition prior to the application of slurry; however, no application shall commence before 8:00 a.m., or after 1:00 p.m. The streets to be sealed shall be closed from the time of application begins until the mixture has achieved sufficient set of 4 to 5 hours to be opened to traffic, or as directed by the Engineer. The full width of the roadway shall be open for use by public traffic no later than 5PM. No residential streets shall be closed to traffic before 8:00 a.m. or after 5:00 p.m.

If lumping, ball, or unmixed aggregate is observed, the slurry shall be removed from the pavement. It shall also be removed if coarser aggregate particles settle to the bottom of the mix. Streaks, such as those caused by oversized aggregate, shall be repaired at once with a hand squeegee.

No longitudinal or transverse streaking, bleeding (flushing), or loss of cover aggregate shall be accepted after application. Under the direction of the Engineer, Contractor shall remove all rejected areas and repair them to the acceptable degree by the Engineer. All cost for correction work shall be borne by Contractor.

The streets to be sealed with slurry shall be sealed from edge of pavement to edge of pavement.

Excessive build-up causing unsightly appearance shall not be permitted on longitudinal or transverse joints. Unless otherwise approved, the overlap at joints will not be less than 1" or greater than 3" and shall be feathered. Joints between asphalt pavement and concrete pavement and/or concrete gutters shall be completely and neatly sealed without excessive overlap onto concrete; any unsightly and objectionable excess shall be immediately removed as required.

The start and finish of a slurry application shall be a straight line which, unless otherwise approved by the Engineer, shall be obtained by laying a strip of building paper or other material, approved by the Engineer, on the pavement surface. After application of slurry, the paper shall be removed, leaving a straight edge.

All cul-de-sacs the Contractor shall slurry seal first to allow an extended cure time for the cul-de-sacs locations. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor at its expense.

The finished surface of the slurry seal shall be at least as smooth as the original pavement surface. Any corrugations on the surface creating vibrations noticeable by passengers in an automobile driving over the slurry sealed surface at legal speeds will result in rejection of the slurry seal construction.

Following curing of the applied slurry, the roadway shall be uniformly black in color and shall exhibit no streaking. Where the completely slurry is not uniform in color, the slurry application will be rejected. Any overlap onto concrete gutters is unacceptable and shall be removed immediately. All curbs, gutters, sidewalks and driveways shall be maintained free of loose aggregate and shall be swept as necessary or as directed by the City Engineer. Any stains resulting from the slurry sealing or paving shall be removed to the City's satisfaction. Any slurry seal application that has been rejected will be removed by cold planning to the original pavement. A new slurry seal application shall then be placed on the pavement. Any Pavement of slurry seal rejected shall be removed and replaced with the cost borne by the Contractor.

The Contractor shall be responsible for covering all asphalt pavement surfaces with an application of slurry seal in designated areas. This will include, but not be limited to, asphalt pavement directly adjacent to edges of structures, fences, walls, planters, walkways, driveways, lawns, and porches. The Contractor shall prevent the slurry seal

from being deposited on any of these facilities and/or improvements and shall remove any splattering or spillage.

The Contractor shall provide such flagmen and barricades as required to protect the uncured slurry from vehicular traffic. Any damage to the uncured slurry shall be the responsibility of the Contractor.

The Contractor shall have a sufficient number of men on the job at all times to properly protect the freshly laid material and to correct any irregularities resulting from spillage, unsatisfactory materials or any other inconsistency as the work progresses. All discrepancies encountered in the application of slurry shall be immediately corrected to the satisfaction of the Engineer.

Upon Completion of each working day, the Contractor shall clean up the street or roads including all utility covers and all ground occupied by him in connection with the work. All work performed by the Contractor shall be left in a neat and presentable condition.

At the end of each day's work and at other times when construction operations are completed or suspended, all equipment and other obstructions shall be removed from the roadway.

Any slurry seal repair work performed by the Contractor shall be reviewed and approved by the Engineer. The cost of any repair work and removal of the damaged slurry seal shall be borne by the Contractor.

302-4.1.4 CRACK SEAL

This work shall consist of sealing all transverse and longitudinal cracks, and/or combination thereof, routing grooves along random cracks; and placing sealing material in the grooves, and as directed by the Engineer.

302-4.1.4.1 Material

Grooves for transverse and longitudinal cracks, and/or combination thereof; shall be cut, to the dimensions as stated, with concrete saws equipped with diamond blades. Each groove shall be cut in one pass of the saw.

Grooves for sealing random cracks shall be routed by any method that will produce a groove of the approximate shape and dimension as stated.

Joint sealant shall conform to the requirements of ASTM Designation: D 3405 as modified herein or to the following:

Joint Sealant shall be a mixture of paving asphalt and ground rubber. Ground rubber shall be vulcanized or a combination of vulcanized and vulcanized materials ground so that 100 percent will pass a No. 8 sieve. The mixture shall contain not less than 22 percent ground rubber, by weight. Modifiers may be used to facilitate blending.

The sealant shall have a Ring and Ball softening point of 135 °F minimum, when tested in accordance with AASHTO Designation: T 53.

The material shall be capable of being melted and applied to cracks and joints at temperatures below 400°F. When heated, it shall readily penetrate grooves ¼ inch wide or wider.

Section 4.2 of ASTM Designation: D3405 is modified to read:

Penetration at 77°F. (25°C), 150g, 5s, shall not exceed 120.

Section 4.5 of ASTM Designation: D3405 is modified to read:

Resilience – When tested at 77°F. (25°C), the recovery shall be a minimum of 50 percent.

Each lot of joint sealant shipped to the job site, whether as specified herein or conforming to ASTM Designation: D 3405, as modified herein, shall be accompanied by a Certificate of Compliance as provided in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications, and shall be accompanied with storage and heating instructions and cautions.

Immediately prior to placing bond-breaker, or, in the case of random cracks, sealant, the joint, or routed crack, shall be cleaned by blast cleaning or by hand methods and then cleaned with high pressure air fets to remove all residue and foreign materials from the groove. Joint and routed crack surfaces shall be dry at the time the sealant is applied.

A bond-breaker of a shape and material recommended by the manufacturer of the sealant, or as approved by the Engineer, shall be placed in the groove of transverse or longitudinal joints, and/or combination thereof.

Joint-Sealant materials shall be heated and placed in conformance with the manufacturer's written instructions and the details shown on the plans. Joint-sealant materials shall not be placed when the pavement surface temperature is below 50°F.

The finished joint sealant shall be bonded to the faces of the joint groove. There shall be no separation or opening between the sealant and the faces of the joint groove, and there

shall be no crack, separation, or other opening in the sealant.

302-4.1.4.2 Equipment

Router: Shall be so designed to follow random cracks accurately and in accordance to the requirements of the specifications and current Environmental Agency standards.

Compressor: An air compressor capable of a minimum of 85 to 150 cfm shall be used.

Asphalt-Rubber Sealant Machine: Shall have an oil jacketed pump heat transfer oil circulation system with a minimum of 200 gallons and an agitation system. There shall be a positive pumping system on the machine. The machine shall have a minimum melting capacity of 100 gallons per hour.

302-4.1.4.3 Application

Routing: Crack seal shall be applied to all cracks equal to, or greater than 1/4" wide. Random cracks equal to or greater than 1/8" wide up to and including cracks 1/4" wide will be routed to a minimum width of 1/4" wide and 1/2" deep, and cracks greater than 1/4" wide up to and including cracks of 3/4" wide shall be routed to a minimum width of 3/4" wide and 3/4" deep by mechanical means. Cracks greater than 3/4" wide shall be blown with compressed air of not less than 100psi. Cracks less than 1/8" wide shall not be sealed under this work..

The Contractor shall protect all existing utility covers, survey monuments, traffic detector loops and pull boxes during the routing operation and shall repair or replace any damaged facilities to its original condition. The existing facilities shall include but not be limited to the above items.

Removing: All routed material, dirt, vegetation, and foreign debris shall be blown and/or removed from the cracks including alligatoring cracks prior to the end of each work day. All cracks shall be free from moisture, all dirt, routed material, vegetation and foreign debris.

Crack Filling: The routed and cleaned cracks shall be filled with specified sealant from the bottom up to the surface in such a manner which does not result in sealant bridging or entrapped air pockets. (With larger cracks, settlement and temperature shrinkage may occur, thus requiring a second application to bring the material up to surface). Immediately after material installation, the material shall be squeegeed as level as possible. Poorly squeegeed material and crack filled material that separates from the crack shall be rejected. Because of the nature of the material, there may be variance above or below the pavement level. Alligatoring crack areas shall also be entirely covered with crack seal material.

Sweeping: Following slurry seal operations, streets shall be swept with a power vacuum sweeper. The Contractor shall perform vacuum sweeping of all slurry sealed streets a minimum three (3) times: twenty-four (24) hours after application of the slurry (or the following Monday if applied on a Friday) and for period of two (2) weeks after application of slurry seal to remove all accumulations of loose material and maintain streets in a “ravel free” condition. The Contractor shall make complete (curb-to-curb) passes on all scheduled sweeps. Where commercial street sweeping vehicles cannot remove loose material, including but not limited to driveways, sidewalks, and curb ramps, hand sweeping or equal shall be performed. The frequency and location of sweeping will be on as needed basis as determined by the Engineer for no additional cost to the City.

Two weeks following the completion of slurry seal operations, the Contractor shall repair all power steering marks, rough seam lines, and any other defects as directed by the City Engineer.

Miscellaneous: Spillage resulting from hauling operation along or across any public traveled way shall be removed immediately by the Contractor at its expense.

The Contractor shall prevent the crack seal materials from being deposited on all existing facilities and/or improvements and shall remove any splattering or spillage.

The Contractor shall provide such flagmen and barricades as required to protect the uncured crack seal materials from vehicular traffic. Any damage to the uncured crack seal materials shall be the responsibility of the Contractor.

The Contractor shall have a sufficient number of men on the job at all times to properly protect the freshly laid material and to correct any irregularities resulting from spillage, unsatisfactory materials or any other inconsistency as the work progresses. All discrepancies encountered in the application of crack seal materials shall be immediately corrected of the satisfaction of the Engineer.

Upon completion of each working day, the Contractor shall clean up the streets or roads including all utility covers and all ground occupied by him in connection with the work. All work performed by the Contractor shall be left in a neat and presentable condition.

Temporary markings shall be placed and maintained until the final striping and markings are placed.

The Contractor shall be responsible for maintaining location of, and access to all waterline valves during construction.

At the end of each day's work and at other times when construction operations are completed or suspended, all equipment and other obstructions shall be removed from the roadway.

302-5.9 Measurement and Payment

[Replace the first paragraph with the following:].

BID ITEM No. 25: SLURRY SEAL TYPE II WITH 2.5% LATEX

Payment for “**Slurry Seal Type II with 2.5% Latex**,” shall be made at the unit price bid per **Extra Long Ton (E.L.T.)** as specified in Section 302-4.5 of the Standard Specifications and shall include full compensation for mix design; surface preparation; crack sealing; oil sealing; weed killing; furnishing and placing slurry seal; clean up; and other items necessary to complete said work.

Payment shall also include the cost to furnish the vehicle scales, all equipment, and tools necessary for field testing.

The cost for the removal of the traffic striping, markings, thermoplastic markings and existing raised pavement markers shall be included within the unit price for the slurry seal, and no additional compensation shall be allowed.

BID ITEM No. 26: CRACK SEAL

Payment for “**Crack Seal**” shall be made at the unit price bid per **Lump Sum (L.S.)** and shall include full compensation for crack preparation; crack sealing; furnishing and placing crack seal; clean up; and other items necessary for complete said work.

The cost for restoring any missing traffic striping, markings, thermoplastic markings and existing raised pavement markers, in-kind, that was affected and/or removed by crack sealing shall be included in the unit price for the crack seal. No additional compensation will be allowed.

302-5 ASPHALT CONCRETE PAVEMENT

[Add the following within each Subsection:].

302-5.1 General

Asphalt Concrete (AC) shall conform to Section 203-6 of the Standard Specifications, with Section 92, "Asphalt" of Caltrans Standard Specifications and Special Provisions, and as modified herein.

- AC base course shall be Type III-B2-PG-64-10 (3/4" sieve size).
- AC leveling course shall be III-D-PG-64-10 (3/8" sieve size) (up to 0.08 foot thick).
- AC surface course shall be Type III-C3-PG-64-10 (1/2" sieve size) and at least 0.16 foot thick.

All areas for reconstruction and leveling shall be marked in the field by the ENGINEER.

The Contractor is not allowed to drive his/her fully loaded trucks on the new asphalt concrete mat.

Sub-grade preparation shall conform to Section 301-1 of the latest edition of the Standard Specifications for Public Works Construction.

Unless otherwise directed by the ENGINEER, the finished surface of the new leveling course shall be 2-inches thick at the center/crown of roadway, tapering to 0 inches thick approximately one foot from the edge of the gutter lip.

Finished surface of the new pavement shall be flush with the edge of the gutter, if there is a bike lane or crosswalk with curb ramps (A.D.A. path of travel). The finished surface of the new pavement shall be 3/8" higher than the edge of the gutter for all other conditions.

The Contractor shall be responsible for maintaining location of and access to, all water valves, water line gate valves and manholes during construction.

Contractor shall schedule paving operations to ensure that construction equipment does not drive over new A.C. material.

At least 24 hours of "cool off" time shall occur between A.C. lifts.

Contractor shall protect and preserve the entire existing pavement outside construction limits in the same condition as existing. Contractor shall replace and/or repair the damaged area to the satisfaction of the ENGINEER at no cost to the City.

Unless otherwise noted below, there are no special equipment requirements, the contractor shall comply with all provisions of the latest edition of the Standard Specifications for Public Works Construction.

302-5.2 Not Used

[Replace with the following:].

302-5.2 Asphalt Removal and Replacement

The Contractor shall remove the existing AC pavement section down to the elevation as depicted on the Plans. All work shall comply with the applicable sections of the Standard Specifications as required.

Sub-grade preparation shall conform to Section 301-1 of the Standard Specifications.

The Contractor shall replace and compact the aggregate base section to the required elevation as specified on the Plans. The aggregate base material shall be $\frac{3}{4}$ " CMB and conform to Section 200-2.4 "Crushed Miscellaneous Base" of the Standard Specifications.

The existing AC pavement shall be saw-cut to full depth to provide a clean, neat, and straight pavement break. Then the join between the existing pavement and the new pavement shall be sealed. A layer of tack coat shall be applied to all vertical-cut faces and between subsequent HMA lifts.

All excavated material shall be hauled and disposed of by the Contractor in accordance with these Special Provision and Standard Specifications.

The Contractor can elect to bring the entire AC Base Course to the existing finished grade prior to cold milling operations.

302-5.4 Tack Coat

Prior to placing asphalt concrete, all existing surfaces shall be cleaned by blowing air, water and/or broom, and the crack seal applied as part of the cold milling operation shall be set and inspected. The surface shall be free of water, dust, and all foreign materials before any tack coat is applied.

The Tack Coat shall be applied to all exposed surfaces.

302-5.5.1 Surface Preparation

Prior to placing asphalt concrete, all existing surfaces shall be cleaned by blowing air, water and/or broom. All striping and markings shall be removed by grinding or by some other approved method before placing asphalt concrete surface course, and skin patching. The surface shall be free of water, dust, and all foreign materials before any tack coat is applied.

Prior to the application of new AC surface course, the Contractor shall locate and tie-out all manholes and valve covers before commencing work.

Asphalt concrete shall be compacted to achieve at least 95 percent of the relative compaction.

The Contractor is not allowed to drive his/her fully loaded trucks on the new asphalt concrete mat.

302-5.6 Rolling

Initial or breakdown compaction shall consist of a minimum of three coverages of a layer of asphalt concrete. A pass shall be a movement of a roller in both directions over the same path.

A coverage shall be as many passes as are necessary to cover the entire width being paved. Overlap between passes during any coverage made to insure compaction without displacement of material, in accordance with good rolling practice, shall be considered a part of the coverage being made and not a part of a subsequent coverage.

Each coverage shall be completed before subsequent coverages are started.

Pneumatic rollers shall not be used without prior approval of the Engineer. The top layer of each lane, once commenced, shall be placed without interruption. The Contractor shall roll the newly laid asphalt concrete in such a manner that will not create a joint between two passes; joints shall be flush. If such joint exists, the Contractor shall be required to replace or repair that section as directed by the Engineer at no cost to the City. Six (6) inches of newly laid asphalt concrete to be joined by an adjacent pass shall not be rolled until adjacent pass has been laid.

Subgrade preparation shall conform to Section 301-1 of the Greenbook, and shall be included in the unit price bid for "Asphalt Concrete."

Asphalt concrete shall be placed with a paving machine equipped with a Preco attachment or an approved equal device for use in obtaining constant cross-slope and maximum joint quality.

At all locations where new asphalt concrete pavement is joining or overlaying existing asphalt pavement, the Contractor shall provide straight neat lines and transition the last twenty (20) feet of new pavement to form a smooth transition with the existing pavement.

Contractor shall protect and preserve the entire existing pavement outside construction limits in the same condition as existing. Contractor shall replace and/or repair the damaged area to the satisfaction of the Engineer at no cost to the City.

302-5.8 Not Used

[Replace with the following:].

302-5.8 FORTA-FI® Fiber-Reinforced Asphalt Cement Concrete

The following are the manufacturer's (FORTA Corporation) specifications for the FORTA-FI® Fiber-Reinforced Asphalt Cement Concrete. Any questions should be addressed to the manufacturer as provided here in subsection 2.1. *Substitutes for this fiber-reinforced product must be equal or better and approved by the ENGINEER.*

1.1 Submittals:**A. Submit copies of manufacturer's literature for fibers including:**

1. Product data
2. Brochures
3. Written instructions to suppliers
4. Written instructions to installers
5. Material safety data sheets (MSDS)

B. Submit copies of certificate prepared by asphalt material supplier, stating that the specified fibers were added to each batch of asphalt delivered to the project site. Each certificate should be accompanied by one copy of each batch delivery ticket indicating product name, manufacturer and quantity of fiber-reinforcement added to each asphalt load.**1.2 Quality Assurance:****A. Fiber Manufacturer to provide technical assistance from design through construction for use of fiber reinforcement.****1.3 Delivery, Storage, and Handling:**

- A. Deliver fiber-reinforcement in sealed, undamaged containers with labels intact and legible, indicating material name and lot number.
- B. Deliver fiber-reinforcement to location where it will be added to each batch or loaded into the mixer.
- C. Store materials covered and off the ground. For ease of handling, do not allow boxers to become wet.

2.1 Manufacturer's Information:

FORTA Corporation
100 FORTA Drive
Grove City, PA 16127
(800) 245-0306
www.fortacorp.com
www.forta-fi.com

2.2 Materials:

- A. FORTA-FI® [Hot-Mix Asphalt (HMA), Warm-Mix Asphalt (WMA), and Hot / Cold-Patch (PAT)] fiber-reinforcement with virgin polyolefins and virgin aramids.
- B. Fiber-Reinforcement: FORTA-FI® fibers with the following typical physical properties:
 1. Nominal Specific Gravity (Bulk Relative Density): 0.91 and 1.44

2. Nominal Material Types: Virgin Polyolefins and Virgin Aramid
3. Maximum length: 0.75-inch
4. Match fiber blend of materials to application installation types:
 - i. Hot Mix Asphalt is designated blend HMA,
 - ii. Warm Mix Asphalt is designated blend WMA, and
 - iii. Patching is designated blend PAT

2.3 Batching and Mixing:

- A. To avoid the formation of fiber balls or not mixed fibers, add sealed plastic bags of fibers into the mixer.
- B. Add fiber-reinforcement at 1.0 pound per ton (lb / ton).
- C. Order product for Pub Mill Mixers for minimum batch size regarding tons per batch to pounds per bag of product.
- D. Order Product for Drum Type Mixers and the anticipated production rate of tons per hour (typically seconds per ton, dosage timing) regarding one-pound per bag of product.
- E. Order fiber-reinforcement materials for one-pound per ton of asphalt materials and allowing for overages, production, and occasional errors based on past experience.

2.4 Pub Mill Mixers and Mixing Operations:

- A. Ensure adequate start, stop, and dosage change information is easily communicated between batch control operations and fiber addition activities.
- B. Add complete bags of fibers just before aggregate is discharged into the pug mill mixer.
- C. Immediately before or immediately after the dried aggregate is added to the pug mill, the bags of fibers should be added and discharged into the pug mill with the aggregate.
- D. Add complete bags of fibers at the general nominal batch size agreed to by operations and mixture design specifications.
- E. Do NOT open the bags and add or discharge into the pug mill.
- F. Dry mixing proceeds for the standard length of time as specified in the mixture design specifications.
- G. The proper quantity of bitumen (asphalt cement, liquid) is added to the pug mill and wet mixing proceeds for the standard length of time as specified in the design mixture specifications.
- H. The asphalt batch is accumulated and discharged normally.
- I. The asphalt batch is discharged to a haul vehicle or storage.

2.5 Drum Type Mixers and Mixing Operations:

- A. Ensure adequate start, stop, and rate change information is easily communicated between drum control operations and fiber addition activities.
- B. Add complete bags of fiber at a point in the mixing process after fines collection and before the addition of liquid asphalt.
- C. Add fibers after the fines collection to ensure the fibers do not clog filters.
- D. Add fibers before the liquid asphalt addition.
- E. Add complete bags of fibers at the general nominal rate agreed to by operations and mixture design specifications.
- F. Do NOT open the bags at any point in the loading process.
- G. Mixing should proceed for the standard length of time as specified in the mixture

design specifications.

- H. The proper quantity of bitumen (asphalt cement, liquid) is added to the drum and wet mixing process for the standard length of time as specified in the mixture design specifications.
- I. The asphalt batch is accumulated and discharged normally.
- J. The asphalt batch is discharged to a haul vehicle or storage.

3.1 Placement:

- A. Discharge fiber-reinforced asphalt cement concrete into locations as directed and in accordance with the project.
- B. Place asphalt cement concrete in accordance with the provision of other sections and with additional instructions as follows.
- C. Avoid over-using long tine rakes or other tools that will align fibers or disrupt the homogeneous, uniform 3-dimensional, fiber dispersion when moving asphalt cement concrete.
- D. Using a lute, "come along," or a flat tined pitch-fork (potato fork) may be useful for moving asphalt cement concrete.
- E. Remove any observed fiber balls from mixture if they occur.
- F. Adjust operations regarding any observed fiber balls.

3.2 Compaction:

- A. Verify timing for initial and final compaction rather than just a visual determination.
- B. Hand Compaction / Finishing: Use appropriate tools as required.

302-5.9 Measurement and Payment

[Replace the first paragraph with the following:].

BID ITEM NO. 15: REMOVE AND RECONSTRUCT ASPHALT CONCRETE (A.C.) [6" MINIMUM DEPTH, INCLUDING EXCAVATION]

Payment for "**Remove and Reconstruct Asphalt Concrete (A.C.) [6" Minimum Depth, including Excavation]**," shall be made at the unit price bid per **Square Foot (SF)**. The unit price bid shall include removal, subgrade preparation, surface preparation, A.C. Type Specified herein inclusive of the added A.C. depth to meet existing grade before cold milling operations, tack coat, temporary A.C. tapers, added crushed miscellaneous base (CMB) to conform to required pavement section, and all labor, material, saw cutting, transitioning, hauling, spreading, compacting, grading, equipment and incidentals required to complete the Work in accordance with these Specifications, as shown on the Plans, and no further compensation will be allowed.

Temporary asphalt concrete work where required by the ENGINEER for traffic control or other purposes shall be considered included in the price bid for the various items of work and no further compensation will be allowed.

**BID ITEM No. 16: TYPE “B” ASPHALT CONCRETE (A.C.) BASE COURSE
(PAVING MACHINE)**

Payment for “**Type “B” Asphalt Concrete (A.C.) Base Course (Paving Machine)**” shall be made at the unit price bid per **Tonnage (TON)**, based upon certified weigh master tickets. The unit price bid shall include surface preparation, A.C. Type Specified herein, tack coat, temporary A.C. tapers, and all labor, material, saw cutting, transitioning, hauling, spreading, compacting, grading, equipment and incidentals required to complete the Work in accordance with these Specifications, as shown on the Plans, and no further compensation will be allowed.

Temporary asphalt concrete work where required by the ENGINEER for traffic control or other purposes shall be considered included in the price bid for the various items of work and no additional compensation will be allowed.

**BID ITEM No. 17: TYPE “D” ASPHALT CONCRETE (A.C.) LEVELING COURSE
(PAVING MACHINE)**

Payment for “**Type “D” Asphalt Concrete (A.C.) Leveling Course (Paving Machine)**” shall be made at the unit price bid per **Tonnage (TON)**, based upon certified weigh master tickets. The unit price bid shall include surface preparation, A.C. Type Specified herein, tack coat, temporary A.C. tapers, and all labor, material, saw cutting, transitioning, hauling, spreading, compacting, grading, equipment and incidentals required to complete the Work in accordance with these Specifications, as shown on the Plans, and no further compensation will be allowed.

Temporary asphalt concrete work where required by the ENGINEER for traffic control or other purposes shall be considered included in the price bid for the various items of work and no additional compensation will be allowed.

**BID ITEM No. 18: TYPE “C” ASPHALT CONCRETE (A.C.) OVERLAY (PAVING MACHINE) –
SURFACE COURSE**

Payment for “**Type “C” Asphalt Concrete (A.C.) Overlay (Paving Machine) – Surface Course**” shall be made at the unit price bid per **Tonnage (TON)**, based upon certified weigh master tickets. The unit price bid shall include surface preparation, A.C. Type Specified herein, tack coat, temporary A.C. tapers, and all labor, material, saw cutting, transitioning, hauling, spreading, compacting, grading, equipment and incidentals required to complete the Work in accordance with these Specifications, as shown on the Plans, and no further compensation will be allowed.

Temporary asphalt concrete work where required by the ENGINEER for traffic control or other purposes shall be considered included in the price bid for the various items of work and no additional compensation will be allowed.

302-7 PAVEMENT FABRIC

302-7.1 General

[Add the following:].

302-7.2 Placement

The Contractor shall place subgrade stabilizing fabric upon the prepared subgrade. The subgrade shall be scarified and compacted prior to the placement of the fabric. Care shall be taken not to overwork the subgrade.

The subgrade fabric shall be *Mirafi 600X* or approved equal and shall be placed on entire subgrade areas before placing asphalt concrete (A.C.) base course. Overlap shall be 48-inches. The contractor shall follow the manufacturer's recommendations for installation of the fabric.

Furnish and place engineering fabric in accordance with Section 302-7 of the Standard Specifications.

The engineering pavement fabric shall conform to Section 213-1 of the Standard Specifications.

302-7.4 Payment

[Replace the first paragraph with the following:].

BID ITEM NO. 19: INSTALL "MIRAFI® 600X" SUBGRADE FABRIC OR APPROVED EQUAL

Payment for "Install 'Mirafi® 600X' Subgrade Fabric or Approved Equal" shall be made at the unit price bid per **Square Foot (S.F.)**, based upon the unit price per square foot in place shall include full compensation for providing all labor, materials and equipment for installing subgrade fabric and other work as required. No additional compensation shall be allowed.

This bid item shall not be considered a major bid item. The City reserves the right to change the quantities or delete this item at no additional costs. Payment shall be made per unit price bid and no additional compensation will be allowed.

Payment for any required overexcavation and crushed miscellaneous base (CMB) shall be per the unit price bid per cubic yard of unclassified excavation (overexcavation) and per ton of CMB (overexcavation).

BID ITEM NO. 20: INSTALL "PETROMAT®" FABRIC OR APPROVED EQUAL

Payment for "Install 'PETROMAT®' Fabric or Approved Equal" shall be made at the unit price bid per **Square Foot (S.F.)**, based upon the unit price per square foot of pavement engineering fabric. Payment shall be based on the actual pavement area covered.

The contract unit price per square foot in-place shall include full compensation for providing all labor, materials and equipment for installing subgrade fabric and other work as required. No additional compensation shall be allowed.

This bid item shall not be considered a major bid item. The City reserves the right to change the quantities or delete this item at no additional costs. Payment shall be made per unit price bid and no additional compensation will be allowed.

302-9 ASPHALT RUBBER HOT MIX (ARHM)**302-9.1 General**

[Add the following:].

Asphalt Rubberized Hot Mix (ARHM) shall conform to Section 203-11 of the Standard Specifications and as modified herein.

- The Asphalt Rubber Hot Mix Surface Course shall be Gap-Graded ARHM-GG-C-PG 64-16 (1/2" sieve size) and at least 0.15 foot thick

Finished surface of the new pavement shall be flush with the edge of the gutter for entire project area.

Contractor shall schedule paving operations to ensure that construction equipment does not drive over new AC material.

The Contractor is not allowed to drive his/her fully loaded trucks on the new ARHM mat.

Contractor shall protect and preserve the entire existing pavement outside construction limits in the same condition as existing. Contractor shall replace and/or repair the damaged area to the satisfaction of the ENGINEER at no cost to the City.

Unless otherwise specified herein, there are no special equipment requirements to perform the work and the contractor shall comply with all equipment specifications of the Standard Specifications.

302-9.2 Tack Coat

[Add the following:].

Prior to placing the ARHM surface course, all receiving surfaces shall be cleaned by blowing air, water and/or broom. The surface shall be free of water, dust, and all foreign materials before any tack coat is applied.

The Tack Coat shall be applied to all exposed surfaces.

302-9.3 Distribution and Spreading

[Add the following:].

At least 24 hours of "cool off" time shall occur between A.C. lifts.

All temporary striping and markings shall be removed by grinding or by some other approved method before placing asphalt concrete surface course, and skin patching.

Asphalt concrete shall be placed with a paving machine equipped with a Preco attachment or similar device for use in obtaining constant cross-slope and maximum joint quality.

302-9.6 Manholes (and Other Structures)

[Add the following:].

The Contractor shall be responsible for maintaining location of and access to, all water valves, water line gate valves and manholes during construction.

Prior to the application of new AC surface course, the Contractor shall locate and tie-out all manholes and valve covers before commencing work and comply with these Special Provisions.

The Contractor shall measure the bridge height clearance at the SR 73 north and south bridges after placement of the AC leveling course at the specified roadway location to confirm that the min. 15'-0' clearance will be achieved after placement of final surface course. Contractor to measure the final height from same location to confirm min.15'-0" clearance after final placement and compaction of surface course. If the measurement reduces the min. 15'-0" clearance, the Contractor shall be required to grind and re-pave the non-conforming area until compliance has been achieved and accepted by the ENGINEER.

The Contractor is directed to Section 403 within these Special Provisions with respect to raising, adjusting or reconstructing utilities to grade.

302-5.6 Rolling

302-5.6.1 General

[Add the following:].

Initial or breakdown compaction shall consist of a minimum of three coverages of a layer of asphalt concrete. A pass shall be a movement of a roller in both directions over the same path.

A coverage shall be as many passes as are necessary to cover the entire width being paved. Overlap between passes during any coverage made to insure compaction without displacement of material, in accordance with good rolling practice, shall be considered a part of the coverage being made and not a part of a subsequent coverage.

Each coverage shall be completed before subsequent coverages are started.

The top layer of each lane, once commenced, shall be placed without interruption. The Contractor shall roll the newly laid asphalt concrete in such a manner that will not create a joint between two passes; joints shall be flush. If such joint exists, the Contractor shall be required to replace or repair that section as directed by the Engineer at no cost to the City. Six (6) inches of newly laid asphalt concrete to be joined by an adjacent pass shall not be rolled until adjacent pass has been laid.

Pneumatic rollers **shall not be used** without prior approval of the ENGINEER.

302-9.5 Joints

At all locations where new asphalt concrete pavement is joining or overlaying existing asphalt pavement, the Contractor shall provide straight neat lines and transition the last twenty (20) feet of new pavement to form a smooth transition with the existing pavement.

302-9.8 Measurement

[Replace the first Sentence with the following:].

ARHM shall be measured by the TON

302-9.9 Payment

[Replace the first paragraph with the following:].

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS

303-5.1 Requirements

303-5.1.1 General

[Replace the entire Subsection with the following:].

Concrete curbs, walks, gutters, spandrels, cross gutters, alley intersections, access ramps, and driveways shall be constructed of Portland cement concrete and comply with Section 201-1 of the Standard Specifications. The following class of concrete shall be used per each type of improvement:

- Curb and Gutter, Spandrels, Cross Gutters, Alley Intersections, and Driveways – **560-C-3250.**
- Sidewalks and Access Ramps – **520-C-2500**

The following AC type and Crushed Miscellaneous Base (CMB) shall be used with respect to each type of improvement:

- Asphalt Concrete Base Course shall conform to Section 302-5 of these Special Provisions.
- Crushed Miscellaneous Base (CMB) shall be $\frac{3}{4}$ " fine and comply with Section 200-2.4 of the Standard Specifications.
- AC Sidewalk – Surface Course (Type III-C3-PG64-10 ($\frac{1}{2}$ " sieve size)) in conformance with Section 203-6 of the Standard Specifications.

Curing compound shall be applied in accordance with the provisions of the GREENBOOK.

CITY Standard Drawings

The following CITY Standard Drawings shall apply or per the direction of the ENGINEER:

- Curb and Gutter shall conform to Nos. 312 and 314.
- Concrete Sidewalk shall conform to Nos. 411, 412, and 413, (and 414 where necessary). 4" Min PCC/4" CMB.
- Driveways shall conform to Nos. 313, 513, and 514.

- Cross-gutters shall conform to No. 415 or per Standard Plan No. 122-2 or 123-2 in the "Standard Plans for Public Works Construction," also known as the A.P.W.A. Standard Plans.

Caltrans Standard Plans

The following Caltrans Standard Plans shall apply:

- Americans with Disabilities Act (ADA) Access Ramps - Construction shall conform to Caltrans Standard Drawing No. A88A adjusted to meet the latest ADA regulations and requirements. The width of the wheel chair access ramp "W" shall be a minimum of five (5') foot wide.

303-5.1.1 a) ADA Access Ramps

The Contractor shall inspect the location of the Access Ramps to be re-constructed prior to beginning the work to determine the appropriate Caltrans Standard Plan Ramp Case to be constructed. If the work entails removing and replacement of existing concrete sidewalk outside the ramp work limit area as identified in these Specifications or as shown on the Plans, he/she shall notify the ENGINEER prior to initiating the work.

The Contractor shall construct all necessary variable height-retaining curb at the back of the curb ramp as well as other retaining curb, if required, pursuant to the appropriate Caltrans Standard Plan ADA Ramp Case as determined by the Contractor and accepted by the ENGINEER. The Contractor shall relocate all street signs effected by the ramp construction to a condition equal to or better than existing.

The detectable warning surface shall be Armor-Tile replaceable truncated domes or approved equal. Contractor shall submit a sample of the detectable warning surface to the ENGINEER for approval, prior to the start of construction. The color shall be **yellow**. The truncated dome mat shall be installed across the entire width of the bottom of the access ramp and shall be installed per the manufacturer's installation recommendations, or as directed by the ENGINEER.

The Contractor shall ensure safe passage by pedestrians during the ADA ramp construction and afford one safe crossing of the street at all times. The Contractor shall set-up all required signage and barricades within the work zone to provide safe pedestrian passage.

AC Tie-in

The Contractor shall saw cut, remove, and reconstruct a minimum of a two (2) foot width (slot patch) of adjoining structural section of the pavement to the limits of the ADA Ramp construction (BCR joint to ECR joint). The AC structural section to be replaced shall be

8" AC Base Course/8" CMB or 12" full depth AC Base Course with compaction as required by the Standard Specifications.

If there is an asphalt concrete adjoining sidewalk to be reconstructed to tie into the new concrete ramp, a one-foot (1') adjoining pavement section shall be removed and replaced with a structural section of 4" AC Surface Course/4" CMB.

Curb and Gutter

The Contractor shall sawcut and remove existing curb and gutter, and construct either Type "C-6" curb and gutter or "C-8" curb and gutter pursuant to the existing curb and gutter condition conforming to the CITY Standard Drawing No. 312, rolled curb and gutter and/or modified curb and gutter at locations marked in the field by the ENGINEER or as designed on the Plans.

SPECIAL NOTE: In order to comply with ADA requirements cross slope of gutter plate and AC at wheelchair ramp locations shall not exceed 5% grade in the gutter pan.

SPECIAL NOTE: Curing compound shall be applied in accordance with the provisions of the GREENBOOK.

Removal of the Concrete Curb and Gutter and AC shall conform to Section 401 "Removal" of the Standard Specifications.

Existing Landscape Areas

All existing landscaping/irrigation/backfill removed, as part of the access ramp construction shall be replaced in-kind and made a part of the work in conformance with these Special Provisions and Standard Specifications at no additional cost to the CITY.

Other Existing Facilities and Obstructions

The Contractor shall protect all existing improvements within the work area not designated to be removed in-place and intact and shall replace any existing improvements damaged by his/her operations at no additional cost to the CITY.

The Contractor shall locate and protect the traffic signal home-run within the slot patch and ramp area and coordinate with the City with respect to the signal loop replacement work as shown on the plans or as required. If the Contractor damages the existing signal loop conductor/conduit or other wiring to the signal pull box, all damage to said existing improvements shall be repaired/replaced to an in-kind condition pursuant to the required specifications and the system shall be restored for full operation at no cost to the City.

The Contractor shall mark, protect, adjust, and re-set all utility boxes/vaults within the reconstructed area. Additionally, the Contractor shall replace any existing marked,

labeled or stamped concrete on the face of curb of existing utilities, which include, but not limited, to water, sewer, gas, etc.

303-5.1.1 b) Curb and Gutter

Per CITY Standards, weakened plane joints are required every ten feet (10') and felt paper every forty feet (40'). Transitional curb and gutter shall be ten feet (10') from one type to the other. No construction joints will be permitted.

303-5.1.1 c) Concrete Sidewalk

The Contractor shall reconstruct existing concrete sidewalk and/or construct new concrete sidewalk around obstructions, install new concrete sidewalk, reconstruct or construct new ADA wheelchair ramps including monolithic curb, meandering sidewalk, retaining curb at back of the sidewalk, and other miscellaneous concrete construction conforming to these Special Provisions and as shown on the Plans. The Contractor may be directed to reconstruct concrete walkways within private properties in order to join new improvements. Prior to initiating the work outside the City rights-of-way, the City will obtain the necessary right of access documents from the private property owner.

If there is an asphalt concrete adjoining sidewalk to be reconstructed to tie into the new concrete sidewalk, a one-foot (1') adjoining pavement section shall be removed and replaced with a structural section of 4" AC Surface Course/4" CMB.

The Contractor shall inspect the location of the concrete sidewalk work area to be reconstructed prior to beginning the work. If the work entails removing and replacement of existing concrete sidewalk outside the work limit area as depicted within these Specifications or as shown on the Plans, he/she shall notify the ENGINEER prior to initiating the work.

Existing Landscape Areas

All existing landscaping/irrigation/backfill removed as part of the concrete walkway construction shall be replaced in-kind and made a part of the work in conformance with these Special Provisions, Standard Specifications, and as directed by the ENGINEER at no additional cost to the CITY.

The Contractor shall place new sod or seed and top soil to match the existing grass species in the areas adjoining the newly constructed concrete improvements that were disturbed by his/her operations. The Contractor may be directed by the ENGINEER to sod or seed other areas as necessary in conformance with these Specifications.

Top Soil shall be Modified Class "A" Topsoil and shall consist of 80% content of Class "A" Topsoil per the Standard Specifications and 20% content of processed wood product of type "I" organic soil amendment per the Standard Specifications.

The Contractor shall protect all existing improvements within the work area not designated to be removed in-place and intact and shall replace any existing improvements damaged by his/her operations. Any damage beyond the construction limit shall be repaired at the Contractor's expense per Section 400-1 of the Standard Specifications.

The Contractor shall protect and support existing irrigation lines and sprinkler heads in place and intact. The Contractor shall adjust the heads to the proper level upon completion of the new sidewalk replacement.

The Contractor shall furnish and install all new pipe sizes to match existing, but no less than ½" schedule 40, PVC pipe, to tie into existing pipes. New sprinkler heads shall be equal to or better than existing inclusive of all appurtenances. All work shall conform to the applicable sections of the Standard Specifications and as directed by the ENGINEER. The Contractor may salvage and reuse sprinkler heads that are still in reusable and functional condition for use at locations from which they were removed.

The Contractor shall cut interfering portions of existing irrigation lines and cap all ends for future reconnection at the time that the work is started at each location. All repair and replacement of the irrigation system shall be done within five (5) days or sooner after disconnection. During disconnection period of existing irrigation systems, the Contractor shall maintain the existing grass, trees, shrubs, and other existing landscape in a live condition with a temporary irrigation system and/or shall water the landscaped areas by hand. Homeowner's water supply shall not be used without written consent from each homeowner.

The Contractor shall modify, relocate or replace and/or extend all encountered irrigation lines or sprinkler heads so as to give full coverage to landscape area.

The Contractor may be directed to extend the existing sprinkler system or place a P.V.C. sleeve under the new sidewalk improvements into the landscaped area between the curb and sidewalk and other locations as necessary as determined in the field by the ENGINEER.

Prior to accepting work, the Contractor must turn the system on, and it must work properly in the presence of and to the satisfaction of the Engineer and property owner. The Contractor shall replace any damaged and dead grass or landscaping beyond construction limits resulting from Contractor's operation or insufficient water supplies at no cost to the CITY.

Other Existing Facilities and Obstructions

Contractor shall adjust to grade existing water meter boxes (WM) to the new grade of the sidewalk. The water meter and water line shall be protected in place. Broken water meter boxes shall be removed and replaced by the Contractor, contact Mesa Water District to obtain and pickup new WM box. WM box shall be furnished to the Contractor at no cost.

The Contractor shall protect in-place the existing mail boxes or relocate them if they do not meet U.S. Post Office standards (see the Standard Plans section, if applicable). The Contractor shall provide a new post in case the existing one cannot be saved as determined by the ENGINEER in the field. The Contractor shall relocate the existing mailboxes which conflict with construction of the sidewalk or pedestrian path of travel with prior approval of the U.S. Post Office Post Master and the ENGINEER.

The Contractor shall relocate any street signs, which interfere, or conflict with construction of the sidewalk. A minimum 4-foot wide path of travel shall be required.

Sidewalk obstruction flare construction shall be per City Standard Drawing No. 413 or as shown on the Plans or as depicted within these Specifications.

At certain addresses, the Contractor will be directed to remove concrete and/or other improvements in the right-of-way. Upon the completion of the removal of existing concrete improvements within the parkway, including the underlying aggregate base for which no replacement is required, the Contractor shall backfill the void with Modified Class "A" Topsoil for placing new sod or seed as directed in those respective bid items.

303-5.1.1 d) Concrete Cross-Gutter

Contractor shall sawcut and remove existing improvements and reconstruct cross-gutter conforming to City of Costa Mesa Standard Drawing No. 415 or per Standard Plan No. 122-2 or 123-2 in the "Standard Plans for Public Works Construction," also known as the A.P.W.A. Standard Plans, and applicable sections of the Standard Specifications, as directed by the ENGINEER.

Eight (8) inches of Crushed Miscellaneous Base (CMB) shall be required under all new cross gutters.

Concrete shall be class 560-C-3250. (High early strength concrete mix)

Crushed Miscellaneous base material and construction shall conform to Subsections 200 and 301 of the The "Greenbook," and as directed by the Engineer. The sieve size shall be $\frac{3}{4}$ " (fine).

New improvements shall be constructed to grades as indicated on the plans to provide a proper flow line with the existing improvements as indicated on the plans.

All cross gutters and spandrel work shall be done in phases in order to provide one travel lane in each direction at all times. Contractor shall provide steel plates to bridge excavations for vehicles at no cost to the City in order to provide vehicle access.

303-5.1.1 e) Concrete Driveway Approach

Contractor shall sawcut and remove existing improvements and construct P.C.C. Driveway Approach per City of Costa Mesa Standard Drawing Nos. 313, 513, and 514 and also to Standard Plan No. 110-2, Type "B" in the "Standard Plans for Public Works Construction," also known as the A.P.W.A. Standard Plans. All work shall conform to the applicable portions of Section 303-5 of the Standard Specifications. Six (6) inches of Crushed Miscellaneous Base (CMB) shall be required under all new driveways.

The Contractor shall adjust all existing utility boxes and conduit, or water meter boxes within the new driveway approach, to its new finished grade, and the adjustment shall be included in the bid price per square foot of Residential Driveway or Commercial Driveway. Removals and/or relocations necessary for driveway construction are to be paid as part of this bid item, except where a separate bid item exists for a stated removal or relocation item of work.

Concrete shall be class 560-C-3250.

Crushed Miscellaneous base material and construction shall conform to Subsections 200 and 301 of the The "Greenbook," and as directed by the ENGINEER. The sieve size shall be $\frac{3}{4}$ " (fine).

If there is existing asphalt concrete adjoining into the new concrete driveway approach, a one-foot (1') adjoining pavement section shall be removed and replaced with a structural section of 6" AC Surface Course/6" CMB.

Asphalt concrete for slot paving shall be $\frac{3}{4}$ " for base course and $\frac{1}{2}$ " for surface course, which is covered in Section 400-4 of Standard Specifications (latest edition).

Soils and aggregate tests shall conform to State of California test methods which may be substituted for designated ASTM test methods as noted herein. Laboratory maximum density tests shall be per Method 2 of Subsection 211-2.1. The correction for oversize materials as stated in Test Method No. California 216 shall be replaced with Note 2 of ASTM D1557.

New improvements shall be constructed to grades as indicated on the plans to match existing improvements and field condition with proper grade to form a safe and smooth riding surface.

Contractor shall provide steel plates to bridge excavations for vehicles at no cost to the City in order to provide access to driveways if requested by the resident.

303-5.9 Measurement and Payment

[Replace the entire Subsection with the following:].

**BID ITEM NO. 5: REMOVE EXISTING AND RECONSTRUCT CONCRETE SIDEWALK
[4" PORTLAND CEMENT CONCRETE (P.C.C.) OVER 4" CRUSHED
MISCELLANEOUS BASE (CMB)] INCLUDING ADA RAMPS**

Measurement and Payment for “**Remove Existing and Reconstruct Concrete Sidewalk [4" Portland Cement Concrete (P.C.C.) over 4" Crushed Miscellaneous Base (CMB)] including ADA Ramps**” shall be per the unit price bid per **Square Foot (S.F.)** as constructed in accordance with these Special Provisions, Standard Specifications, and as shown on the Plans. The Work Limits is as shown on the Plans and shall include, but not limited to, the following Work:

1. Saw cutting, clearing and grubbing, unclassified excavation, furnishing, placement and compaction of 4" CMB, placement of concrete, removing tree roots encounter within the excavation limits, blocking out and/or widening existing tree wells.
2. Restoration of existing sprinkler systems including any reducers required for different pipe sizes, and from existing or new pipes to the sprinkler heads, connection points, all fittings, all tees and ells, backfill material for pipe trench, and all miscellaneous materials for proper installation and/or modification for construction of complete sprinkler system removed by sidewalk replacement operations.
3. Furnish and place Modified Class "A" Topsoil, landscaping, plants and new sod as disturbed by operations.
4. Re-grading the areas adjacent to the new sidewalk construction to transition to join new improvements.
5. Adjusting water meter boxes and water valves to grade within replacement area.
6. Replacement, or repair to the existing curb drains during construction operations.
7. At certain addresses, the Contractor will be directed to remove parkway concrete and/or other improvements in the right-of-way. Upon the completion of the removal of existing concrete improvements within the parkway, including the underlying aggregate base for which no replacement is required, the Contractor shall backfill the void with Modified Class "A" Topsoil for placing new sod or seed as directed in those respective bid items.

Payment shall be considered full compensation for furnishing all labor, materials, equipment, and disposal costs to complete the Work and no additional compensation will be allowed.

BID ITEM No. 6: REMOVE EXISTING AND RECONSTRUCT C-6 CURB & GUTTER OVER 6" CRUSHED MISCELLANEOUS BASE (CMB) WITH 2' ASPHALT CONCRETE (A.C.) SLOT PAVE

Measurement and Payment for “**Remove Existing and Reconstruct C-6 Curb & Gutter over 6" Crushed Miscellaneous Base (CMB) with 2' Asphalt Concrete (A.C.) Slot Pave**” shall be per the unit price bid per **Lineal Foot (L.F.)** as constructed in accordance with these Special Provisions, Standard Specifications, and as shown on the Plans. This bid item shall include the removal and disposal of existing curb and gutter, sawcutting, unclassified excavation, furnishing and placing CMB below curb and gutter, root removal, temporary AC pavement, repair of AC slot pavement adjacent to the proposed curb & gutter removal and construction, construction of variable curb height to meet existing sidewalk and existing improvements, depressed curb for driveway approach, curb drain removal and replacement, replacement of any damaged irrigation lines and sprinkler heads, replacement of any damaged grass, paint red curb, replacements of any survey monuments and/or ties; replacement of any damaged traffic signal home-run or wiring to the signal pull box, and other work as required to complete the work. No additional compensation shall be allowed.

BID ITEM No. 7: REMOVE EXISTING AND RECONSTRUCT C-8 CURB & GUTTER OVER 6" CRUSHED MISCELLANEOUS BASE (CMB) WITH 2' ASPHALT CONCRETE (A.C.) SLOT PAVE

Measurement and Payment for "Remove Existing and Reconstruct C-8 Curb & Gutter over 6" Crushed Miscellaneous Base (CMB) with 2' Asphalt Concrete (A.C.) Slot Pave" shall be per the unit price bid per **Lineal Foot (L.F.)** as constructed in accordance with these Special Provisions, Standard Specifications, and as shown on the Plans. This bid item shall include the removal and disposal of existing curb and gutter, sawcutting, unclassified excavation, furnishing and placing CMB below curb and gutter, root removal, temporary AC pavement, repair of AC slot pavement adjacent to the proposed curb & gutter removal and construction, construction of variable curb height to meet existing sidewalk and existing improvements, depressed curb for driveway approach, curb drain removal and replacement, replacement of any damaged irrigation lines and sprinkler heads, replacement of any damaged grass, paint red curb, replacements of any survey monuments and/or ties; replacement of any damaged traffic signal home-run or wiring to the signal pull box, and other work as required to complete the work. No additional compensation shall be allowed.

BID ITEM No. 8: REMOVE & RECONSTRUCT P.C.C. CROSS-GUTTER, SPANDREL, LOCAL DEPRESSION, AND P.C.C. PAD WITH 3' ASPHALT CONCRETE (A.C.) SLOT PAVE

Measurement and Payment for "Remove & Reconstruct P.C.C. Cross-Gutter, Spandrel, Local Depression, and P.C.C. Pad with 3' Asphalt Concrete (A.C.) Slot Pave" shall be 8" Portland Cement Concrete (P.C.C.) over 8" Crushed Miscellaneous Base (C.M.B.) per the unit price bid per **Square Foot (SF)** and shall include sawcut, removal and disposal of existing P.C.C., asphalt and miscellaneous improvements, excavation and subgrade preparation, Crushed Miscellaneous Base, forms, steel reinforcement, steel plates, and all labor, materials, equipment and incidentals as required to complete the work. No other compensation will be allowed.

BID ITEM No. 9: REMOVE EXISTING AND RECONSTRUCT P.C.C. DRIVEWAY APPROACH

Measurement and Payment for "Remove Existing and Reconstruct Driveway Approach [6" Portland Cement Concrete (P.C.C.)" shall be 6" Portland Cement Concrete (P.C.C.) over 6" Crushed Miscellaneous Base (C.M.B.) per the unit price bid per **Square Foot (S.F.)** and shall include sawcut, removal and disposal of existing P.C.C. and miscellaneous improvements, excavation and subgrade preparation, Crushed Miscellaneous Base, forms, P.C.C., backfilling, restoring form areas, steel plates, and all labor, materials, equipment and incidentals as required to complete the work. No other compensation will be allowed.

BID ITEM No. 10: REMOVE & RECONSTRUCT MISCELLANEOUS AC PAVEMENT

Measurement and Payment for “**Remove & Reconstruct Miscellaneous Ac Pavement**” per the unit price bid per **Tonnage (TON)** and shall include AC material, furnishing and placement of CMB, sawcutting, unclassified excavation, removal and disposal of existing AC improvement, Tack Coat, and all other work as required to complete the work. No additional compensation will be allowed.

This item of work does not include the AC pavement work that is required for Bid Items No. 1-6.

At the direction of the Engineer, the contractor shall sawcut, remove, and construct new asphalt pavement. Limits, lines, and grades shall be marked or as directed by the Engineer in the field. For residential streets, the minimum structural section shall be of 6" AC over 6" CMB or as directed by the Engineer in the field. For arterial streets, the minimum structural section shall be 12" AC over 12" CMB or as directed by the Engineer in the field.

Tack coat shall comply with the provisions of the “GREENBOOK.”

The asphalt concrete class and grade shall be Type III-B2-PG64-10 ($\frac{3}{4}$ " sieve size) for base course and Type III-C3-PG64-10 ($\frac{1}{2}$ " sieve size) for surface course. Surface course shall be a minimum two inches (2") thick as covered in Section 400-4 of Standard Specifications (latest edition).

The contractor acknowledges that this bid item will only be used at the discretion of the Engineer to transition and join new construction to meet existing field conditions and/or to repair damaged asphalt pavement.

The quantities for this bid item shall be limited to the work directed by the Engineer and no adjustments for increased compensation shall be allowed for substantial reductions.

SECTION 314 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS

[Replace the entire Section with the following:].

314-1 GENERAL

The striping, markings and signing shall be reinstalled at existing locations in accordance the latest edition of the State of California Standard Plans and Specifications, City Details for Striping and Markings, as modified within these Special Provisions, and as specified by the ENGINEER. The Contractor shall furnish all material, services, labor and equipment necessary for the required pavement preparations, layout and completing the pavement markings.

The installed material shall be plainly visible to the motorists both day and night. Nighttime visibility shall be by a retro-reflector induced by ordinary headlights.

These special provisions set minimum requirements on material characteristics of the pavement marking products. Requirements concerning application and contractor warranties shall be maintained to secure acceptable performances.

The contractor shall record the existing Striping and Markings for the entire project limits on the Plans and provide to the Engineer prior to removal operations. Contractor shall restore pavement traffic striping and marking damaged during construction to original condition.

314-2 REMOVAL OF TRAFFIC STRIPING AND CURB AND PAVEMENT MARKINGS

314-2.1 General

All striping must be removed by the wet sandblasting method with immediate cleanup of residue. No "blacking out" or temporary covering will be allowed. Such removal shall be by a vacuum attachment operating concurrently with the blast cleaning operations. Reflective striping tape may be used, except that it shall not be applied to final surfaces. It shall be completely removed from all surfaces prior to placement of subsequent work.

All pavement markers shall be removed without damaging the pavement.

314-3 TEMPORARY STRIPING, SIGNING, RAISED PAVEMENT MARKERS

The Contractor shall be responsible for the placement of all required temporary signing, striping, and markings and the removal of existing stripes and markings in the installation

of required temporary striping.

Spotting shall be completed prior to the removal of any temporary striping of traffic control devices. Existing temporary stripes and markings shall be removed prior to painting new ones, but in no case shall any section of street be left without proper striping for more than 24 hours or over weekends or holidays.

Traffic striping and markings shall be removed before any change is made in the traffic pattern. Removal shall be coordinated with the installation of new pavement markings to provide continuous, non-conflicting guidance to public traffic.

Should temporary striping be required on the finished asphalt surface, the method and configuration must be approved by the ENGINEER for approval prior to placement.

At no time shall the street be open to traffic without delineation to separate opposing traffic. Temporary delineation type shall be at the inspector's discretion.

In general, temporary reflectorized markers are the preferred type of temporary delineation.

314-4 PERMANENT STRIPING AND PAVEMENT MARKERS

314-4.1 Surface Preparation

In order to ensure maximum possible adhesion, the pavement surface upon which the pavement markings are to be placed shall be properly cleaned from grease, oil, mud, dust, dirt, grass, loose gravel, and other deleterious material prior to the application of the thermoplastic pavement markings, and prime sealer.

314-4.2 Premarking

If the markings are not visible, the Contractor will be required to premark each installation prior to the application of the material. Where no existing markings are in place, the Contractor shall place the new pavement markings where directed by the Engineer.

314-4.3 Striping Standards

The Contractor shall conform to the following requirements:

1. All traffic lines shall conform to the Caltrans Standard Plans and Standard Specifications, (latest edition) and any amendments thereto, and these Special Provisions.

2. City standards are provided for Stop Legends, Stop Bars, Crosswalk striping within Appendix B of these Specifications.
3. The Contractor shall install traffic striping, markings, arrows and messages pursuant to the "Striping/Pavement Marking Chart" and sketch where provided. All work and materials shall conform to the requirements of Caltrans Standard Specifications (latest edition).
4. The following striping details shown in Caltrans Standard Plans A20A-D and A24A-E shall be routinely used for traffic lines.

<u>Line</u>	<u>Detail</u>	<u>Pavement Marker Info</u>
Yellow Centerline (Residential)	2	Type D
Double Yellow (Residential)	22	Type D
Skip White	9	Type G
Two-Way Left-Turn Lane	32	Type D
Channelizing Stripe	38B	Type G
Lane Drop Stripe	37B	Type C

5. All crosswalks, turn arrows, stop and yield bars and messages, and all other pavement legends except "Bike Lane" shall be installed in thermoplastic.
6. All yellow school crossings shall be upgraded to the Higher Visibility Crosswalk type Continental per 2018 Caltrans Standard Plans, Plan No. A24F. The crosswalks shall be 8 feet minimum using inside dimensions. The blocking shall be 24 inches wide with 24-inch min gaps or as required for alignment for wheel tracks. If the street intersects at an intersection where there is an existing Yellow Crosswalk due to the vicinity of the School, the crosswalk shall be painted and refreshed for the entire intersection. If the cross-street has a different pattern for crosswalk then the Contractor shall confer with the City staff for the direction on installing the appropriate type.
7. Bike lane stripes and messages shall be painted per Caltrans Standard Plan No. A20D, Detail 39 and 39A.
8. The first three (3) raised pavement markers for any white line at an intersection shall be Type "C" for the opposite direction of travel.
9. Two coats of paint shall be applied. The second coat shall be applied seven (7) days following the first application.

314-4.3.1 Thermoplastic Pavement Marking Material

All stop bars, crosswalks, Legends, and arrows shall be replaced using thermoplastic, and conform exactly to the City of Costa Mesa stencil types.

Thermoplastic shall be composed of Alkydoid/Maleic Thermoplastic Pavement material that is applied to a road surface in a molten state by extrusion of the designated thickness and width. The stripe shall, upon cooling, be reflectorized and be able to resist deformation by traffic.

On all dry pavement surfaces binder/sealer shall be applied to the area where hot thermoplastic pavement markings are to be placed. The binder/sealer shall be that recommended by the manufacturer of the thermoplastic material. The material shall form a continuous film which shall dry rapidly and adhere to the pavement. The material shall not discolor nor cause any noticeable change in the appearance of the pavement outside of the finished pavement markings. All solvents shall have evaporated from the binder/sealer prior to the application of the molten thermoplastic materials.

314-4.3.2 Raised Pavement Markers (RPM)

The Contractor shall remove and replace all RPMs in accordance with these project special provisions.

The Contractor shall furnish and install raised pavement markings no sooner than seven (7) days nor later than fourteen (14) days following the final installation of traffic striping, and located pursuant to the striping plans.

314-4.3.3 Blue “Fire Hydrant” Raised Pavement Markers

The Contractor shall furnish and install blue reflective raised pavement markers on new pavement at existing fire hydrant locations. The Contractor shall install the raised pavement marker within seven (7) days following the second application of traffic striping paint. The new marker location shall be in accordance with the Typical Hydrant Marker Location Standard Drawing and the following requirements:

1. Two-way Streets or Roads: Markers shall be placed six (6) inches from edge of painted centerline on the side nearest the fire hydrant. If the street has no centerline, the marker shall be placed six (6) inches from the approximate center of the roadway on the side nearest the hydrant. See Figures 1 through 3 of the above-mentioned standard.
2. Streets with Left-Turn Lane at Intersection: Markers shall be placed six (6) inches from edge of painted white channelizing line nearest the hydrant. See Figure 4 of the above-mentioned standard.
3. Streets with Continuous Two-Way Left-Turn Lane: Markers shall be placed six

(6) inches from the edge of the painted yellow barrier line on the side nearest the fire hydrant. See Figure 5 of the above-mentioned standard.

The Contractor shall furnish and install traffic delineation using paint "cat tracking," temporary marking tape, temporary flexible reflective markers, or other approved media immediately as existing stripes are removed, including bicycle lanes, in existing locations or as shown on striping sketch.

The Contractor shall "cat track" for striping and markings no later than 24 hours after the application of the slurry/ACSC.

No painting shall occur until the Engineer has reviewed the cat tracking and approved the striping layout. Changes to the cat tracking shall be performed by the Contractor as directed by the Engineer at no additional cost to the City.

The Contractor shall apply the first application of paint for traffic striping and markings no later than **seven (7) days** following the application of the slurry/ACSC.

The Contractor shall apply the thermoplastic no sooner than **seven (7) days** nor later than **twelve (12) days** following the application of the slurry/ACSC.

All legends, including limit lines, shall be striped within **72 hours** after the street (if applicable) has received the final surface course.

314-4.3.3.1 Truncated Domes or Detectable Warning Surfaces

Truncated domes or detectable warning surfaces shall be installed on existing access ramp surfaces. Detectable warning surfaces shall comply with City Standards and the California Building Code Title 24, and shall consist of vitrified polymer composite, with at least 25% by weight aluminum oxide, nominally 0.20" thick, colorfast and UV stable. Panels must be anchored to the sidewalk access ramp surface in accordance with manufacturer's recommendations. The color of the panels shall be black except for ramps adjacent to or within one block of a school. Ramps within one block of a school shall have yellow truncated domes. Contractor shall submit a sample of the detectable warning surface to the ENGINEER for approval, prior to start of construction.

Grind Ramp Lip to 0" Curb Face:

On all ramps to be retrofitted with a truncated dome, if an existing lip exists as the bottom of the ramp adjacent to the flowline, the Contractor shall grind the existing curb ramp lip to achieve a 0" curb face. The grind shall be tapered at the edge of the ramp surface, as appropriate, to avoid creating a sharp elevation drop-off and shall be 0" to ½" deep and shall be at least 6" wide in a straight-line-grade. Grades within the grind area shall also be limited to 8.33%. The price of grinding the lip shall be included in the unit price for retrofitting the existing curb ramp.

314-4.3.5.1 Painting Curbs

Where existing red, yellow, or other colored curb is removed and replaced, the Contractor shall paint the newly constructed curb (the curb face and top of curb) its original existing color. The paint material shall be water base and shall be Pervo Paint or approved equal. For red colored paint, it shall be Pervo Paint #3123 or approved equal. For yellow colored paint, it shall be Pervo Paint #6003 or approved equal.

All work shall comply with Section 91 of the current Caltrans Standard Specifications. The painting of the newly constructed curbing shall be completed within seventy-two hours after the new curb and gutter has been poured.

Paint residual shall not remain on the sidewalks, gutter pans, or other places beyond the limits of the curb face and the top of curb painted. The Contractor shall remove the paint beyond the limits as soon as possible after the painting is completed.

The Contractor shall notify the Engineer at least two (2) working days prior to commencement of the work. All work shall be performed to the satisfaction of the Engineer.

314-4.5 Pavement Marking Guarantee

The pavement marking material furnished and installed under this contract shall be guaranteed by the Contractor against failure due to blistering, bleeding, excessive cracking, staining, discoloration, oil content of pavement materials, smearing or spreading under heat, deterioration due to contact to oil or gasoline drippings, chipping, spoiling, poor adhesion resulting from defective materials or methods of application, loss of reflectivity, from traffic and wear.

314-5 Measurement and Payment

Bid Item No. 4: **INSTALL LANE MARKINGS, STRIPING PAVEMENT LEGENDS, AND RAISED PAVEMENT MARKERS (RPM)**

Measurement and Payment for “**Install Lane Markings, Striping Pavement Legends, And Raised Pavement Markers (RPM)**” shall be included in the Contract price bid per **Lump Sum (LS)** and shall include and shall include full compensation for removal of existing striping, legends, and markings; furnishing all materials, services, sawcut, tools labor and equipment and incidentals as necessary to perform all the work involved. No additional compensation will be allowed.

Bid Item No. 11: **PAINT CURB EXISTING COLOR**

Measurement and Payment for “**Paint Curb Existing Color**” shall be included in the Contract price bid per **Lineal Feet (LF)** and shall include the actual painting of the curb to its original color. Type of paint shall be determined by the ENGINEER. Considered

full compensation for furnishing all labor, materials, equipment and other related work and no additional compensation will be allowed.

BID ITEM NO. 13: INSTALL TRUNCATED DOMES (ADA RAMPS)

Measurement and Payment for “**Installation of Truncated Domes for ADA ramps**” shall be per the unit price bid per **Each (EA)** as constructed in accordance with these Special Provisions, Standard Specifications, pursuant to the manufacturer’s recommendations, and as shown on the Plans. Contractor shall install Replaceable Detectable Warning Surface (Truncated Domes) on ramps per current Caltrans Standard Drawing No. RSP A88A and manufacturers requirements, as directed by the Engineer. The detectable warning surface shall be Armor-Tile replaceable truncated domes or approved equal. Requests for the use of equivalents to those specified, must be submitted to the City. Only substitutions approved prior to bid due date via addenda Product Substitutions, will be considered. No substitutions will be considered after bid due date and contract award. It is the sole responsibility of the successful bidder to prove to the City that such a material is truly an equivalent. Contractor shall submit a sample of the detectable warning surface to the Engineer for approval, prior to the start of construction. The color shall be yellow unless otherwise specified. The truncated dome mat shall be installed across the entire width of the bottom of the access ramp and shall be installed per the manufacturer’s installation recommendations, or as directed by the Engineer. No additional compensation will be allowed.

Bid Item No. 21: INSTALL BLUE RAISED PAVEMENT MARKERS (BRPM)

Measurement and Payment for “**Install Blue Raised Pavement Markers (BRPM)**” shall be included in the Contract price bid per **Lump Sum (LS)** and shall include full compensation for removal of existing striping, legends, markings, and BRPM’s; placement of all temporary striping, placement of all permanent striping, signage, pavement legends, and BRPM’s pursuant to the Plans and these Special Provisions and Caltrans Standard Specifications and Plans; and furnishing all materials, services, tools, labor, equipment and incidentals as necessary to perform all the work involved and required and no additional compensation will be allowed.

PART 4

EXISTING IMPROVEMENTS

SECTION 400 – PROTECTION AND RESTORATION

400-1 GENERAL

400-1.1 Removal and Restoration of Existing Improvements

Contractor shall remove and restore all existing improvements including but not limited to, removing and installing mailboxes, fences, walls, driveways, bricks, pavers, relocation of existing drain pipe, removing tree roots and restoring planters, sprinklers, and landscaping and irrigation system.

Contractor shall restore or replace to a condition equal to or better than existing condition. All replacement and restoration work shall be coordinated with the City and completed to satisfaction of the City.

400-2 PERMANENT SURVEY MARKERS

[Replace with the following:].

Unless otherwise provided in the Special Provisions, the Contractor shall be responsible for protecting all existing horizontal and vertical survey controls, monuments, ties and benchmarks located within the limits of the project. If any of the above require removal, relocating or resetting, the Contractor shall, prior to any construction work and under the supervision of a California-licensed Land Surveyor or Civil Engineer licensed to practice surveying, inventory all existing survey monuments and ties and establish sufficient temporary ties and bench marks to enable the points to be reset after completion of construction by the Contractor's Surveyor or Civil Engineer licensed to practice surveying. A copy of this inventory shall be submitted to the Engineer.

Submitted documents shall include field notes and sketches which must contain existing information of centerline control points, survey monuments and swing ties to be replaced such as existing L.S. No. or R.C.E. No., Per Parcel Map No. ____, or Tract Map No. ____, and other related information; they must be sealed and signed by the civil engineer or land surveyor registered by the State of California. The monument resetting work shall comply with the Subdivision Map Act, Orange County, California State requirements, and applicable CITY Codes.

[Add the following Subsection:].

400-2.1 CITY Standard Drawings

- Standard Drawing No. 613 or 615.

Any ties, monuments and benchmarks disturbed during construction shall be reset per City standards after construction and the tie notes submitted to the City on 8½" x 11" loose leaf paper. The Contractor and its sureties shall be liable, at Contractor's expense, for any resurvey required due to its negligence in protecting existing ties, monuments, benchmarks or any such horizontal and vertical controls.

400-2.2 Survey Monuments

Reset tie monument shall have at least four (4) control points.

The Contractor shall obtain prior approval from the ENGINEER before setting new survey monuments and ties.

New survey monuments shall be set on new pavement surface with a 2.5" (minimum) P.K. nail, spike, or equal and brass washer with an R.C.E. or a L.S. tag. Four (4) new control lead and tack swing ties shall be set on top of curb for each new survey monument.

If existing notches of a monument are on the manhole ring, said notches must be ground out after a new PCC collar is constructed around the manhole. The Contractor shall provide four points (monuments) of four-foot tangent over ties. Requirements shall be per the preceding paragraph.

If the Contractor fails to reset ties and monuments and fails to set new centerline ties, the CITY will hire private professional engineers or land surveyors to perform the work and will deduct such cost from the contract. The deduction shall include the cost of the CITY personnel time involved.

The Contractor must submit a corner record for each monument to the County of Orange for approval. The Contractor shall submit all approved monuments to the CITY before final payment.

The Contractor shall also submit to the CITY field notes and sketches for all existing control ties and monuments to be protected in place. These documents must be signed and sealed by either the Professional Licensed Land Surveyor or Civil Engineer registered in California.

400-3 PAYMENT

[Replace the last sentence with the following:].

BID ITEM No. 22: ADJUST AND RESET EXISTING SURVEY MONUMENTS AND TIES PER CALIFORNIA LICENSED LAND SURVEYOR

Payment for “**Adjust and Reset Existing Survey Monuments and Ties per California Licensed Land Surveyor**” shall be made at the unit price bid per **Each (EA)**, based upon submittal of the approved corner record from the County of Orange. The unit price bid shall include: filing fees with Orange County, swing ties, incidental traffic control, monument inventory, setting new monuments, corner records, and all labor, materials and other incidentals to adjust and reset the survey monuments and ties complete in-place and no additional compensation will be allowed.

The City reserves the right to change from constructing a survey monument and ties to replacing the existing survey monument and ties when existing information is available or delete this item of work at no additional cost.

SECTION 402 – UTILITIES

402-1 LOCATION

402-1.1 General

[Add the following:].

Locations of utilities shown on plans are approximate only and are based on a search of available records.

Attention is directed to the possibility of utility mains or laterals within the project limits. The CONTRACTOR shall have the locations of the various utility facilities within reconstruction areas marked on the surface prior to construction and protect them during the removal and reconstruction procedures. The CONTRACTOR shall contact the City Transportation Services Department to locate traffic signal conduit within the reconstruction areas.

Prior to commencing any other work, CONTRACTOR shall carefully excavate and determine precise locations and depths of all utilities, including service connections, shown on the plans and marked in the field, which may affect or be affected by Contractor's operations. This work shall be done in accordance with Section 402-1.1 of the Standard Specifications. CONTRACTOR shall not be compensated for any delays or extra work brought about by his failure to perform the above-mentioned work. CONTRACTOR shall be responsible for any damage to existing utilities shown on the plans pursuant to its location operations as required under this subsection of the Standard Specifications.

Upon completion of the Project, the CONTRACTOR shall be required to remove, to the satisfaction of the ENGINEER, all utility locator markings and utility tie-out paint markings that either the CONTRACTOR, the CITY or utility companies make during the course of the work from the surfaces of sidewalks, driveway approaches, curb and gutters, using the removal method acceptable to the ENGINEER. Any damage to the existing improvements due to CONTRACTOR'S removal operation, shall be included in the various applicable items of work, and no additional compensation will be allowed therefor.

The CONTRACTOR shall notify owners of the utility companies at least two (2) working days in advance of any work (See Subsection 402-4 of these Special Provisions for utility contact information).

402-1.2 Payment

[Replace with the following:].

Payment for utility location by the Contractor shall be included in the bid prices for the various items of work requiring utility location and no further compensation will be allowed.

402-2 PROTECTION

[Add the following:].

The Contractor shall be responsible for protecting and supporting all existing utilities and maintaining the location of and access to all gate valves during construction. When damage to existing utilities is caused by the Contractor's operations, the Contractor shall, at his expense, repair or replace damaged facilities promptly, in accordance with all applicable sections of the Standard Specifications and the standards of each affected utility. Should the Contractor fail to perform the required repairs or replacements, the cost of performing such repairs or replacement by others shall be deducted from any monies due or to become due the Contractor.

402-2.1 Payment

Payment for utility protection by the Contractor shall be included in the bid prices for the various items of work requiring utility protection and no further compensation will be allowed.

402-4 RELOCATION

[Add the following:].

Any miscellaneous utilities to be relocated by the Contractor, as indicated on the Plans, shall be relocated in a workmanlike manner, and all such work shall be done only at such times which are acceptable to the utility owner. The Contractor shall schedule its

relocation work in cooperation with the utility owner and shall be responsible for any costs resulting from the Contractor's failure to do the work at times which are acceptable to the owner. The Contractor shall notify owners of the following companies at least two (2) working days in advance of any work:

AT&T (right-of-way) Valentina Gipson 3939 E Coronado St, Rm 2030 Anaheim, CA 92807 (o) 714-618-9132 Email: yk3921@att.com	Cost Mesa Sanitary District Javier Ochiqui, Management Analyst 290 Paularino Avenue Costa Mesa, CA 92626 (o) 949-645-8400 Email: jochiqui@cmsdca.gov
Mesa Water District Phil Lauri 1965 Placentia Ave. (inter-office mail okay) Costa Mesa, CA 92627 (o) 949-207-5449 (c) 949-631-1200 (24-hour Emergency) Email: phill@mesawater.org	Costa Mesa Sanitation District Marc Esquer, District Engineer (o) (949) 645-8400 x241 (c) 949-473-2522 Email: mesquer@cmsdca.gov
Mesa Water District Mark Pelka 1965 Placentia Ave. Costa Mesa, CA 92627 (o) (949) 207-5451 Email: phill@mesawater.org	Costa Mesa Sanitation District Nabila Guzman, Construction Notices 290 Paularino Avenue Costa Mesa, CA 92626 (o) 949-645-8400, ext. 230 Email: nguzman@cmsdca.gov
Irvine Regional Water District Brianna Palecek 15600 Sand Canyon Ave. Irvine, CA 92618 (o) 949- 453-5811 Email: Palecek@irwd.com <i>*utility requests</i>	Orange County Water District (OCWD) Chris Olsen P.O. Box 8300 Fountain Valley, CA 92728 (o) 714-378-3200 (c) 714-378-3240 (24-hour Emergency) Email: colsen@ocwd.com Email: utilityrequest@ocwd.com
Irvine Regional Water District Kelly Lew 15600 Sand Canyon Ave. Irvine, CA 92618 (o) 949-453-5586 (p) 949-729-7300 (24-hour) Email: lew@irwd.com	Orange County Sanitation District (OCSD) Daniel Lee P.O. Box 8127 Fountain Valley, CA 92728 (o) 714-593-7348 (c) 714-593-3301 (24-hour Emergency) Email: Dlee@ocsd.com
CA Regional Water Quality – Santa Ana Region Mark Smythe 3737 Main St., Suite 500 Riverside, CA 92501 (o) 951-782-4130 (c) 951-543-8523 Email: msmythe@waterboards.ca.gov	Mpower Communications, Inc. Mark Denning 2698 White Road Irvine, CA 92614 (o) 949-864-0296 (c) 949-547-6455 Email: mdenning@telepacific.com

Metropolitan Water District of So. California Civil Engineering Substructures Section Shoreh Zareh P.O. Box 54153 Los Angeles, CA 90054 (o) 213-217-7474 (c) 626-844-5610 (24-hour) Email: szareh@mwdh2o.com	SCE (Utility Notice Requests) Kasy Chapman 7333 Bolsa Ave. Westminster, CA 92683 (o) 714-895-0109 (c) 800-611-1911 (24-hour) Email: kasey.chapman@sce.com
Metropolitan Water District of So. California Civil Engineering Substructures Section Melissa Choi P.O. Box 54153 Los Angeles, CA 90054 (o) (213) 217-7516 Email: mchoi@mwdh2o.com	SCE (Service Planner – Orange Coast S/C) Nick Mukanos 7333 Bolsa Ave. Westminster, CA 92683 (o) 714-895-0210 (c) 714-943-4491 Email: nick.mukanos@sce.com
Southern California Gas Co. (Transmission) P.O. Box 2300 Chatsworth, CA 91313-2300 (o) 818-701-4546 Email: SoCalGasTransmissionUtilityRequest@semprautilities.com	Southern California Gas Co. Alfredo Gutierrez (o) 213-231-7515 (o) 714-385-3386 Email: rlendineng@semprautilities.com
Charter Communications Utility Research Requests E-mail: DL-SOCAL-CHARTER-ENGINEERING@CHARTER.COM	Charter Communications Don Simons Construction Manager, Zone 8 7142 Chapman Ave. Garden Grove, CA 92841 (o) 714-591-4871 Email: don.simons@charter.com
Spectrum Time Warner Cable Jose Roman 12051 Industry St. Garden Grove, CA 92841 (o) 714-591-4846 (c) 657-263-3641 Email: jose.roman@charter.com	Verizon Communications Matt Bergine Engineer IV Specialist-Network Engineering & Operations (o) 949-417-7841 (c) 714-822-6207 Email: matt.bergine@verizon.com
OCTA – Stops & Zones Kyle Poff 550 S. Main St. Orange, CA 92863 (o) 714-560-5833 Email: kpoff@octa.net OCTA (Detour Coordination) Dispatch: 714-265-4330	Verizon Communications Switchboard (o) 703-547-2000

<p>Newport-Mesa Unified School District Steve Morris (o) (714) 679-9891 (f) (714) 424-7503 Email: smorris@nmusd.us</p>	<p>DIGALERT.ORG (24-HR) 811 2 days before digging.</p>
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Where existing utility main lines and conduits (excluding sewer main lines) and all utility service lines (excluding sewer laterals) are to be relocated or declared abandoned by the affected utility companies, the Contractor shall be responsible for contacting the respective utility representatives for coordinating the relocations and for determining the abandonments. The Contractor shall proceed with excavation in such a manner that will allow utility companies adequate and reasonable time to relocate service lines. The Contractor shall not be compensated for any delays caused by failure to coordinate the above work with utility companies.

[Replace the Section Title with the following:].

SECTION 403 – MANHOLE AND VALVE ADJUSTMENT AND RECONSTRUCTION

403-1 GENERAL

[Replace with the following:].

Contractor shall adjust existing manholes and water valves to grade conforming to all applicable sections of the latest edition of the Standard Specifications, Mesa Water District (MWD) Standards, and to the provisions of the City of Costa Mesa Standard Plans.

The Contractor shall notify affected utility owners at least 5 working days in advance of the need to commence work required prior to paving operations and again for work required after paving operations. The Contractor shall mark locations of utility vaults where utility companies specifically state adjustments shall be made after paving. If it is found to impractical for the utility owner to complete remodeling or adjustment to structures, as evaluated by the ENGINEER, then the Contractor shall be absolved of further responsibility in connection therewith, and the structure shall be adjusted to grade by the utility owner under permit or ordinance procedure established by the CITY for utility cuts in pavement.

The manhole and valve box locations and distance from curb to center shall be marked on the curb face by the Contractor.

[Replace entire Subsection with the following:].

403-3 MANHOLES AND VALVES IN ASPHALT CONCRETE PAVEMENT

[Replace with the following:].

403-3.1 Storm Drain and Sanitary Sewer Manholes

All Storm Drain (SD) and Sanitary Sewer (SS) Manholes are to be protected from debris prior to construction and shall be thoroughly cleaned of any construction debris, which may have entered the manhole due to the Contractor's operations.

Work shall include the removal or furnishing of grade rings as necessary to adjust the manhole to grade.

The method of adjusting manholes in areas for resurfacing shall be as follows:

The asphalt pavement immediately adjacent to the manhole shall be removed, the manhole shaft extended with adjustment ring(s) to proper grade, the manhole frames and covers replaced, the manhole frames set in concrete, and the pavement replaced with a minimum of 2 inches of asphalt concrete. The finished grade of the cover shall be $\frac{1}{4}$ inches below the finish grade of the asphalt pavement. The asphalt pavement material shall conform to the surrounding pavement and AC pavement requirements of these Special Provisions.

Existing SD and SS manholes shall be adjusted to new pavement grade **48 hours** after paving operation.

The Concrete for the SD and SS manholes shall be **560-C-3250**.

Contractor shall notify the Costa Mesa Public Services Department for coordination of SD manhole adjustments and Costa Mesa Sanitary District (CMSD) or Orange County Sanitation District (OCSD) for coordination of SS manhole adjustments at least two working days prior to beginning work.

403-3.1 Water Valves

Water valves shall be protected in place and shall be accessible at all times during construction.

Valve covers shall be marked as to their location by the contractor prior to the placement of the pavement. The contractor shall furnish new valve cans if existing cans are damaged during operation. Existing covers shall be adjusted to new pavement grade **48 hours** after paving operation.

Contractor shall notify the respective water district at least 2 working days prior to beginning work. All work adjusting water valve cans and covers to grade shall be inspected and approved by MWD.

Valve boxes shall be checked with a valve key for proper operation.

The Concrete for the valve covers and collars shall be **560-C-3250**.

The Contractor shall be responsible for maintaining location of, and access to, all water line gate valves during construction operations. The Contractor may salvage and utilize all existing caps or sleeves, but shall be required to furnish all sleeve extensions. Any lost caps or sleeves shall be replaced by the Contractor at his cost.

All existing broken water sleeves shall be removed and replaced by the Contractor who shall contact the respective utility to pick up new sleeves for replacement.

403-5 PAYMENT

[Replace with the following:].

BID ITEM NO. 23: ADJUST MANHOLE COVERS TO GRADE

Payment for “**Adjust Manhole Covers to Grade**” shall be per the unit price bid per **Each (EA)** and shall include removal and disposal of existing improvements, adjusting the manhole to grade, and providing all labor, tools, equipment, materials, and incidentals necessary for doing the work in compliance with Costa Mesa Sanitary District (CMSD), Orange County Sanitation District (OCSD) standards, or Orange County Water District (OCWD) standards the Standard Specifications, these Special Provisions, as shown on the Plans, and to the provisions of the City of Costa Mesa Standard Plans, and no additional compensation shall be allowed.

BID ITEM NO. 24: ADJUST WATER VALVES TO GRADE

Payment for “**Adjust Water Valves to Grade**” shall be per the unit price bid per each (EA) and shall include removal and disposal of existing improvements, adjusting the water valve to grade, providing all labor, tools, equipment, materials, and incidentals necessary for doing the work in compliance with Mesa Water District (MWD) or Irvine Ranch Water District (IRWD) standards, the Standard Specifications for Public Works Construction, as shown on the Plans, and to the provisions of the City of Costa Mesa Standard Plans and no additional compensation will be allowed.

SECTION 404 – COLD MILLING

404-1 GENERAL

[Add the following:].

Cold milling of existing asphalt is required to remove damaged pavement and to permit new asphalt pavements to adhere to the existing surface and shall be performed per Plans and in accordance with Section 404, "Cold Milling" of the Standard Specifications, and as modified herein.

The existing asphalt concrete pavement shall be cold milled from the finished surface to a depth of two **(2)** inches from edge of gutter to edge of gutter. The final depth, width, length and shape of the cut shall be 2" below the lip of gutter as indicated on the Plans. The final cut shall result in a uniform surface conforming to the typical cross section(s) except as otherwise directed by the ENGINEER. Except as otherwise called for on the Plans, all A.C. pavement cuts shall be cut to neat, clean, and straight lines to the satisfaction of, and as directed by, the ENGINEER.

The existing asphalt concrete pavement shall be header cut at a depth of (2) inches below the existing pavement, ranging from the edge of gutter to (7) foot wide, along both sides of the street. The limits will be marked in the field by the Engineer. The work shall comply with Section 302-5 of the latest edition of the Standard Specifications for Public Works Construction.

Burning or heat planning will not be permitted. The planed pavement shall provide a maximum bond surface suitable for resurfacing.

The cold milled material shall be the responsibility of the Contractor to remove and dispose of from the Project limits in accordance with all laws and regulations.

404-1.1 Crack Sealing

Upon completion of the required cold mill depth, the Contractor shall inspect, sweep, and seal all cracks equal to or greater than ¼" wide and equal to or greater than 1" deep as follows:

Clean entire crack to a depth of up to 1" using sandblasting, brushing, and air blowing techniques as required to provide a crack free from all debris, dust, loose material and moisture. Gouging or plowing may be required to remove incompressible debris deep in the crack. The cleaned crack shall be filled with granulated tire rubber, plasticizer and filler, as manufactured by Crafcro as Road Saver 203, or approved equal. All crack filler material shall be in conformance with the manufactures specifications. The crack sealant placed shall be slightly below the cold milled pavement surface to avoid over-application and wicking through the new AC surface during compaction of the AC Base and Surface Course lifts. Deep cracks greater than 1" should be filled with sand and covered with a thin layer of sealant.

The sealant product shall conform to the following specifications:

ASTM D6690, D3405, AASHTO M173 and Federal SS-S-164 and SS-S 1041C.

All holes greater than 4" in diameter that exceed the cold mill depth specified shall be cleaned of loose materials, filled with Asphalt Concrete Type III-B2-PG-64-10 (3/4" sieve size), and compacted to a smooth even surface with the adjacent existing milled pavement prior to placement of the AC Base or Leveling Course.

404-1.2 Existing Facilities

Survey Monuments

Surveyor's street and property line monuments, not scheduled for removal shall be protected in accordance with the Standard Specifications and these Special Provisions.

Utilities

The CITY has made every reasonable effort to locate and mark on the Plans all known metal roadway improvements such as sewer manhole covers, water valve covers, catch basin covers, which, if struck, could damage the cold milling cutting drum and/or carbide tipped cutting teeth and makes no guarantee that it has successfully done so, therefore, Contractor must thoroughly inspect the work site in advance of the cold milling operation to minimize the risk of striking any unseen under surface object(s) and shall include in the price bid for cold milling the removal work, additional amount sufficient to cover the cost of damage related down time and the cost of repair of damage to said cold milling cutting drum and/or carbide tipped cutting teeth.

Curb and Gutter

Care shall be exercised not to damage adjacent concrete gutters or curbs. Gutters or curbs damaged shall be replaced at the Contractor's expense.

404-8 DISPOSAL OF MILLINGS

[Add the following:].

Residue from grinding shall not be permitted to flow or travel into gutters, onto adjacent street surfaces or parkways. All residues shall be completely removed by sweeping and properly disposed. No washing of residues into drainage structures will be allowed.

404-10 PAVEMENT TRANSITIONS

[Add the following:].

Where required, temporary asphalt concrete ramps shall be installed to meet all current ADA accessibility requirements. Additionally, temporary asphalt concrete shall be placed at all cross-street transition sections, and driveways, as required for grade change conformance tapers.

404-11 MEASUREMENT

404-11 PAYMENT

[Replace with the following:].

404-11 MEASUREMENT AND PAYMENT

BID ITEM No. 14: COLD MILL (2" MIN DEPTH)

Measurement and Payment for "**Cold Mill (2" Min Depth)**" of the asphalt concrete pavement shall per the unit price bid per **Square Foot (SF)** and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals; doing all work involved in cold milling the existing asphalt concrete surfacing, header cut, hauling and disposing of the material; conforming to existing grades and transitions, furnishing the asphalt concrete for and constructing, maintaining, removing, and disposing of temporary asphalt concrete tapers, crack sealing, and measurement as specified in these Special Provisions and as shown on the Plans, and as directed by the ENGINEER, and no additional compensation shall be allowed.

PART 6

TEMPORARY TRAFFIC CONTROL

SECTION 600 – ACCESS

600-1 GENERAL

[Add the following:].

Prior to restricting normal access from public street to adjacent properties, the Contractor shall notify each property owner or owner's agent, informing them of the nature of the access restriction and the approximate duration of the restriction. The Contractor shall make every effort possible to minimize such restrictions.

600-2 VEHICULAR ACCESS

[Add the following:].

Trenches left open overnight shall be bridged in a safe and acceptable manner at all driveways and walkways to provide safe access.

The Contractor shall provide access as required to accommodate special circumstance at any residence including access for disabled, impaired, special medical needs, etc.

The Contractor shall use temporary asphalt surfacing at his own expense as required to maintain traffic in a safe and nondisruptive manner. The Contractor shall construct temporary AC ramps to provide safe and driveable access to residents and businesses. Transitional and temporary asphalt concrete shall be removed prior to placement of new AC pavement.

600-3 PEDESTRIAN AND EMERGENCY ACCESS

[Add the following:].

A minimum of one four (4) foot wide pedestrian walkway shall be maintained and safely delineated along each public street at all times during construction.

Contractor shall provide emergency access for the fire trucks and other emergency vehicles at all times and notify the Police and Fire Departments in writing two (2) working days prior to construction.

The Contractor shall provide access as required to accommodate special circumstance at any residence including access for disabled, impaired, special medical needs, etc.

SECTION 601 – TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES

601-1 GENERAL

[Add the following:].

Traffic control shall also conform with the provision of the latest edition of Work Area Traffic Control Handbook (WATCH) published by Building News, Inc, within the City Right-of-Way and pursuant to the Caltrans Standard Plans and Specifications within the Caltrans Right-of Way, and the Plans and Specifications.

The Contractor shall perform all work for this Project Monday through Friday, except City observed holidays, and shall be allowed to work from 7:00 a.m. to 3:30 p.m. on residential streets, and from 8:30 a.m. to 3:30 p.m. on arterial and collector streets (see City's Master Plan of Highways for reference), or unless directed otherwise by the ENGINEER. The Contractor may be allowed to work additional hours on Saturdays and Sundays pursuant to and at the discretion of the ENGINEER.

Special Conditions to Traffic Control and Limitations to Working Hours

Lane closures shall be allowed per the traffic control and working hours shown in the City approved Temporary Traffic Control Plan (TTCP). Minor deviations from the requirements concerning hours of work, which do not change the cost of the work, may be permitted by the ENGINEER upon the written request of the Contractor, provided that traffic will be better served and the work expedited. The Contractor shall obtain prior written approvals from the Engineer before adopting such deviations.

601-2 TEMPORARY TRAFFIC CONTROL PLAN (TTCP)

[Add the following:].

The Contractor shall submit to the City a complete Temporary Traffic Control Plan (TTCP) in accordance with the Plans, the Standard Specifications, the Caltrans' Manual of Traffic Controls in Construction and Maintenance Zones (latest edition) within Caltrans Right-of-Way, these Special Provisions and the standards contained in the Work Area Traffic Control Handbook (WATCH) within City Right-of-Way, published by Building News, Inc. (latest edition).

NOTE: Contractor to be aware of the following restrictions to any and all work being performed within the City of Costa Mesa when developing the TTCP, unless otherwise directed by the ENGINEER:

- a. Any work within a two (2) block radius of any school will be performed during a school break or on weekends. Contractor shall coordinate work schedule with ENGINEER, prior to commencing of proposed improvements.
- b. Contractor is not allowed to perform any work adjacent to the Orange County Fair Grounds from Friday prior to the start of the Orange County Fair to the Monday after the Fair ends. During this time, Contractor shall coordinate with the Engineer locations of the streets, as specified in the City's Orange County Fair Moratorium Map, prior to commencing of proposed improvements.

- c. The Contractor shall not be allowed to perform any work from the Monday before Thanksgiving to the Monday after New Year's Day on Arterial streets, and during the week of any Holiday (Sunday through Saturday) on Residential streets. During this period, all work shall be completed, all travel and/or traffic lanes shall be restored to a safe condition, be fully operational, and shall be opened to vehicular traffic.
- d. During elections, no work will be allowed within six hundred feet (600') from polling place including no parking of construction equipment or employee vehicles within said distance of 600 feet.
- e. Prior to commencement of any work within City limits, the contractor shall coordinate with the ENGINEER so that the work performed will not interfere with any special events occurring in the City throughout the year.
- f. Any night or weekend work shall be approved by the City a minimum of five (5) working days prior to the scheduled construction of the streets affected.

601-3 TEMPORARY TRAFFIC CONTROL (TTC) ZONE DEVICES

601-3.4 Operations and Maintenance

[Add the following:].

The Contractor shall keep the areas adjacent to the Project site clear of any objects that may be hazardous to pedestrians and motorists. Provisions to reroute pedestrians, including the disabled, around the work area must be clearly delineated. The Contractor shall be responsible for the project safety on a 24-hour basis each calendar day for the entire duration of the project.

The City will only provide inspection during the designated construction hours Monday through Friday and as approved by the ENGINEER for Saturday and Sunday work in accordance with the work hours defined herein. Any work done without inspection is at the Contractor's risk and subject to rejection. The replacement costs for rejected work will be borne by the Contractor.

The Contractor shall provide access as required to accommodate special circumstance at any residence including access for disabled, impaired, special medical needs, etc. At all times the Contractor shall provide a safe and walk able temporary sidewalk with a minimum width of thirty-six inch (36") clearance adjoining excavated areas within parkway limits for wheelchair and pedestrians to travel around construction areas. If such clearance is not possible, barricading, plating, filling, or other measures shall be required at no additional cost to the City.

The Contractor shall protect and preserve all the existing pavement outside construction limits in the same condition as existing. Contractor shall replace and/or repair the damaged area to the satisfaction of the ENGINEER at no cost to the CITY if damaged by the Contractor.

The Contractor shall limit excavations for curb and gutter, driveways, sidewalk, cross-gutter and spandrels work that will leave an open excavation for only one weekend in a continuous two-week period.

601-3.5 Signs and Signage

601-3.5.1 General

[Add the following:].

The Contractor shall use illuminated or reflective warning/construction signs at both ends of construction area, and at appropriate locations or as directed by the ENGINEER for the entire duration of the project. Solar powered flashing arrow boards will be required for all lane closures and may be required for other traffic control. In addition to other delineation, the Contractor shall be responsible for the project safety on a 24-hour basis. Where construction signing conflicts with existing signing, the Contractor shall cover existing signs in a manner approved by the ENGINEER.

In order to minimize interruption to the construction and the inconvenience to the motorists, the Contractor must post traffic control signs at all applicable approaches to forewarn traffic. All signs must be visible and readable to the traffic from a minimum distance of 75 feet.

The Contractor shall install C-18 ROAD CONSTRUCTION AHEAD, C-17 with APPROPRIATE SPEED LIMIT, and C-13 END CONSTRUCTION signage and as required pursuant to the Plans and Specifications.

The Contractor shall furnish, install, post and maintain in place "No Parking - Tow Away" signs of a minimum height of forty-two (42) inches (from ground finish surface to top of sign) on temporary traffic control devices (even if streets have posted "No Parking" signs), which shall be posted at least **72 hours** prior to commencement of roadwork, unless otherwise directed by the ENGINEER. On the sign, Contractor shall print the hours, day(s) and date of closure in two-inch-high letters and numbers. A sample of the completed sign shall be approved by the ENGINEER five (5) working days prior to posting. The signs shall be spaced at a maximum of 50 feet from the street intersection and/or from each adjacent sign and at 200 feet spacing within each alley. For any work to be performed on Monday morning or a morning following a holiday, the Contractor must post "No Parking - Tow Away" signs with all requirements as specified at least 48 hours prior to weekend or holiday begins.

When directed by the ENGINEER, the Contractor shall provide flagmen to direct the traffic, at no additional contract cost to the CITY.

Coordination of Traffic Control with Residents, Utilities, and other Agencies

The Contractor shall complete the following coordination efforts with residents, affected utilities, and other agencies as part of the Temporary Traffic Control work:

a. Scheduling

The Contractor shall submit the Construction Work Schedule to the CITY for review and acceptance pursuant to Section 6-1.1 of the General Provisions. This schedule shall provide affected residents and businesses ample “on-street” parking within an 800-foot distance from their residence and/or businesses’. Requests for changes in the schedule shall be submitted by the Contractor to the CITY for approval at least three (3) working days prior to the scheduled construction of the streets affected.

b. Notification

Two (2) weeks prior to construction, the Contractor shall be responsible for all notification to the residents and the businesses, and provide project status updates to affected residences and businesses informing them of the pending Project and Scope of Work, unless otherwise directed by the ENGINEER. The Contractor shall submit a resident notification letter to the CITY for approval at least five (5) working days prior to delivery. The Contractor shall hand deliver copies of the approved notification letter and a newsletter (copies provided by the CITY) to the affected residences and businesses prior to the scheduled construction of the streets. This notification letter shall state the date and time of restricted travel on the affected streets. Failure to meet the approved schedule requires that the Contractor immediately notify residents of the cancellation for that day's work and reschedule construction of the affected area at a later date, at no cost to the CITY. Notification of rescheduled work shall follow this same procedure.

Notify the ENGINEER five (5) working days before commencing any work as stated in “a” above.

Notify the trash pick-up company “Costa Mesa Disposal” and all other trash haulers licensed to do business within the city of Costa Mesa of the schedule of work and the limitation of access. Coordinate with trash haulers and residents to ensure that regularly scheduled trash collection will occur. Contact Public Services Department at (714) 754-5307 for addresses of Costa Mesa Disposal and other trash haulers; also notify U.S. Postal Service and all other affected utilities (Edison, sewer, water, gas, telephone, etc.).

Coordinate with Orange County Transportation Authority to plan and to accommodate bus routes at least five (5) working days prior to commencement of any work, which will affect any of their facilities.

601-3.6.4 Barricades

[Add the following:].

Type I, II, and III barricades shall be used at all approaches, per standards and as directed by the Engineer. The Contractor shall employ sufficient traffic barriers to prevent traffic from entering the construction areas.

601-4 TEMPORARY TRAFFIC STRIPING AND PAVEMENT MARKINGS

The Contractor shall provide temporary delineation as depicted in the TTCP and as directed and approved by the ENGINEER. Temporary delineation shall include wet nozzle sandblasting of conflicting markings, installation and removal of temporary centerlines or lane lines, detour signing, barricading, replacement of traffic lines, and markings in their proper locations upon termination of the detour phase.

Provide temporary travel lane delineation, as required, at all times. Temporary flexible reflective stick on markers (slurry markers) may be applied.

Any locations yielding a situation that is not considered driveable by the ENGINEER shall be resolved by the Contractor at the direction of the ENGINEER. The Contractor shall not be paid for such corrective action and shall be charged for any costs incurred by the City for corrective action.

Provide temporary traffic restriping at the conclusion of any working day for any centerline or lane line, which is obliterated by construction for a distance longer than 65 feet.

601-4.3 Removal

[Replace with the following:].

Removal shall conform with Section 314-2 of these Special Provisions.

The Contractor shall provide the first coat of permanent traffic restriping in accordance with Section 314 of these Special Provisions.

601-4.4 Measurement**601-4.5 Payment**

[Replace both with the following:].

601-4 4 Measurement and Payment

Measurement and Payment for Temporary Traffic Striping and Pavement Markers shall be in accordance with Section 314-2 of the Special Provisions.

601-5 TRAFFIC LANE WIDTHS AND CLEARANCES**601-5.2 Lanes Widths**

[Add the following:].

The minimum lane width shall be 10 feet. There shall be a minimum of 5-foot clearance from open excavations deeper than 4-inches, and 24-inches clearance from other obstructions and any excavations less than 4-inches unless authorized by the Engineer. The clearance requirements from open excavations may be reduced if K-railing (if the contractor so chooses) with crash cushions are utilized; the specification and layout of the K-rails with crash cushions shall conform to Caltrans' standards and shall be approved by the ENGINEER; all costs for K-rails and crash cushions shall be borne by the Contractor.

[Add the following Subsection:].

602 MEASUREMENT AND PAYMENT**BID ITEM No. 3: TEMPORARY TRAFFIC CONTROL**

Measurement and Payment for “**Temporary Traffic Control**” shall be at the contract price bid per **Lump Sum (LS)** and shall be considered full compensation for providing the Temporary Traffic Control Plan (TTCP), coordination, notifications, signage, and all labor, materials, equipment, and other related work as required to implement the TTCP as shown on the Plans, in accordance with all applicable sections of these Special Provisions, Standard Specifications, Caltrans Standard Specifications and Plans, and Caltrans Permit conditions, and no additional compensation will be allowed. The progress payment for Temporary Traffic Control shall be based on the completion percentage of the entire Project as determined by the ENGINEER.

PART 7

STREET LIGHTING AND TRAFFIC SIGNAL SYSTEMS

SECTION 701 – CONSTRUCTION

701-1 GENERAL

[Add the following:].

The following additions are made to the “Standard Specifications.” If there is a conflict between the “Standard Specifications” and these additions, these additions shall have precedence. Provisions of the Standard Specifications and Standard Plans (2018) of the State of California, Department of Transportation (Caltrans) shall apply to all construction materials, methods, and payment for traffic signal and lighting work, except as stated herein.

701-1 GENERAL

701-17 TRAFFIC SIGNAL CONSTRUCTION / MODIFICATION

[Modify this Subsection per the following:].

Sections 86 and 87 of the 2010 Standard Specifications and Standard Plans of the State of California, Department of Transportation (Caltrans), Division of Highways, shall apply to all construction materials, methods, and payment, except as stated herein for Traffic Signal Construction. The Contractor shall visit the site during the bidding phase to estimate the quantities for replacement of existing systems as specified. Contractor shall also obtain existing record drawings for further verification of striping layout, which is also covered under Section 314-1 of these Special Provisions. Any changes or deviations between the plans and field markings shall be at the ENGINEER’s discretion at no additional expense.

Caltrans Std. Spec’s. §4-1.03

Scope of Work – Project and Work Description:

The Project consists of modification of the existing traffic signal at Harbor Boulevard and Hamilton Street. Work includes but is not limited to furnishing and installation of new vehicle indications, new conduit, new pull boxes, new pedestrian push button, new traffic signal pole on new foundation to be constructed by the Contractor, and rewiring of the intersection including termination of new signal cable and conductors in existing traffic signal cabinet.

Caltrans Std. Spec’s. §8-1.02

Schedule:

The Contractor shall initiate procurement of traffic signal equipment immediately upon contract authorization and begin assessment of utility locations. The Engineer shall approve the scheduling and sequence of all construction work prior to performing the

construction activity. The Contractor shall contact each utility company to coordinate and schedule work and provide written correspondence to the Engineer.

The Contractor shall verify all existing facilities and notify the Engineer of any conflicts found during pre-construction inspection prior to commencement of any work. During the course of construction, no additional compensation will be provided for the correction of the differences between the plans and in the field.

The Contractor shall attend a pre-construction meeting within one (1) week following contract award. No actual project working days shall be charged for these activities. The Contractor shall notify the City in writing of the start date of actual field construction.

It is the intent of the City to provide the Fourteen (14) week period for furnishing and delivery of equipment prior to start of construction activity. Excavation, conduit installation, pull boxes and foundations should be coordinated in a most expedient manner to minimize the disruption and inconvenience of an extended construction schedule. Construction once started shall be pursued daily through project completion.

The Contractor is responsible for securing an adequate storage site for equipment and materials. The Contractor shall provide supervisory personnel to keep the construction site in a safe, neat and orderly condition at all times. No Materials or equipment shall be stored at the job sites unless approval is issued by the Engineer.

The Contractor shall have on the work site at all times as his agent, a competent English speaking superintendent capable of reading and thoroughly understanding the drawings, specifications, and other related documents.

Caltrans Std. Spec's. §56-3.01C(2)
Foundations:

Portland Cement Concrete (PCC) shall conform to Section 90-2, "Minor Concrete" of the Standard Specifications and shall contain not less than 564 pounds of cement per cubic yard. Foundation concrete shall be vibrated to eliminate air pockets. Anchor bolts and cages shall be furnished and installed by the Contractor conforming to Caltrans standards. The contractor shall verify the bolt pattern of each pole prior to foundation installation.

Existing pole foundations shall be completely removed. All material removed for pole foundations shall become the property of the Contractor and disposed of outside the work site by and at the expense of the Contractor on the same day of excavation. Contractor shall define the exact location and depth of all utilities in the vicinity of proposed foundations. After all utility locations are exactly established, the Contractor shall contact Engineer for authorization of specific pole foundation location.

Caltrans Std. Spec's. §56-3.02
Steel Standards, Poles, Pedestals, and Posts:

Contractor shall furnish and install new traffic signal pole with all necessary nuts, bolts, washers, cages, and other hardware as required conforming to manufacturer and Caltrans standards, at no additional contract expense. Poles and hardware shall be tested

and certified per Caltrans testing procedures. Copies of the inspection request form and certifications given to the Engineer. Sign mounting hardware shall be Detail "U" of the Standard Plans ES-7N.

The Contractor shall coordinate the delivery and erection of poles to occur on the same day. No materials or equipment shall be stored at the job site unless authorized by the Engineer. The job site shall be maintained in a neat and orderly condition and safe pedestrian pathways provided at all times along all sidewalks, without exception. The installation of signal poles shall meet CAL/OSHA Electrical Safety Order and the Public Utilities Commission General Order No. 95, Rules for Overhead Electric Line Construction.

Caltrans Std. Spec's. §87-21.03B
Maintaining Existing and Temporary Electrical Systems:

The Contractor shall schedule work to maintain full signal operations daily each peak period, without exception. The Contractor shall furnish and install temporary wiring and hardware as required to maintain the signal operational daily during peak periods, at no additional contract expense. Traffic signal communications shall remain in operation daily each peak period; work shall be carefully coordinated to maintain fiber optic communications service.

Caltrans Std. Spec's. §86-1.02B and §87-1.03B
Conduit and Accessories and Conduit Installation:

Conduit shall conform to the provisions in Section 86-1.02B, "Conduit and Accessories" and shall be installed to the provisions in Section 87.103B, "Conduit Installation" of the Caltrans Standard Specifications, unless otherwise approved by the Engineer.

Conduit shall be High Density Polyethylene (grey color) – HDPE, IPS SDR11 GPE, or Schedule 80 PVC, unless otherwise approved by the Engineer. The contractor shall have the proper HDPE spooling equipment to install conduit without crimping or damage. HDPE conduit shall not be spliced. A bonding wire shall be furnished with all HDPE conduit. All conduit sweeps shall meet Caltrans standards for future fiber optic cable installations.

Existing reused conduit shall be cleaned with a mandrel or cylindrical wire brush and blown out with compressed air. All existing rigid metal conduit to be reused shall be equipped with new elbows and rigid metal fittings manufactured of mild steel. Rigid galvanized steel conduit couplings shall be threaded or compression type. Threadless connections or threaded coupler with two bolts as a clamp shall not be allowed. Rigid metal type shall be manufactured of mild steel and conform to UL Publication UL 6 for Rigid Metallic Conduit. Conduit threads shall be brush painted with either zinc-rich paint or zinc-rich primer, spray-on applications shall not be permitted.

Rock wheeling shall be allowed only if authorized in writing by the Engineer. The Engineer prior to work shall approve the method of rock wheeling. Conduit installation under pavement, curb/gutter areas shall be by boring method approved by the Engineer.

No open cutting shall be permitted for streets in City moratorium areas, unless City Standard roadway repair moratorium compliance measures are implemented. Any work in designated moratorium areas will include AC pavement mill and overlay work extending 50' beyond the damaged area, within each affected travel lane.

Excessive use of water, such that pavement might be undermined, or subgrade softened shall not be permitted. Conduits to be drilled or jacking rod shall be fitted with suitable drill bits for the required hole size. Jacking or boring method must not weaken or damage any embankment, structure or pavement. Any mud from jacking or boring shall be flushed from the conduit and removed from the jacking pit to eliminate inadequate backfilling.

Parkway trenching shall conform to City of Costa Mesa Standard Drawing No. 813, 411, 413 and 414 for sidewalk replacement. All existing plant and irrigation materials including but not limited to sod, trees and bushes damaged by trenching or boring work shall be replaced in kind, at no additional compensation.

Within pull boxes, conduit shall be placed to meet minimum clearances between the pull box base, the conduit end and lid of pull box, conforming to Caltrans Standard Plans and Specifications. The contractor shall adjust existing pull boxes where clearance is inadequate to accommodate existing and proposed cable and/or conductors. Work shall conform to Caltrans Standard Specifications 86-1.02B and 87-1.03B. The ends of conduit termination in pull boxes and controller cabinets shall be sealed with an approved type of sealing compound.

Conduit shall be placed in a manner to allow the cable/wire to be pulled in a straight line and clear the side of the pull box by at least 51 mm (2"). Use minimum bending radius as permitted by Appendix H of ICEA S-19/NEMA WC 3 and SMFO cable manufacturer's recommendations.

After conductors/cables have been installed, the exposed end of conduits terminating in pull boxes, service equipment enclosure and controller cabinets shall be sealed with an approved type of sealing compound immediately after installation of conductors. Conduit for future use in pull boxes shall be threaded and capped, with a pull rope intact between successive pull boxes.

All excavations for the installation of conduits and pull boxes, and removal of old systems, shall be backfilled, compacted and restored to match adjacent areas and excess material shall be immediately removed from the job site. All trenching activity, commenced each day, shall be fully backfilled to the finished surface grade at the end of each day; final resurfacing shall be completed within five (5) working days on all streets and all trenches maintained in a safe condition.

Work shall include furnishing and installing trenching, jacking and boring, and all associated labor, materials, tools, equipment and incidentals involved in furnishing and installing conduit, complete in place. This shall include installation of conduit under sidewalk, soil and roadway pavement areas, removing surface materials, furnishing fittings, bends, bushings, pull wires, modification of conduit entrances, replacement and repair in kind of AC, PCC, sod, irrigation within all areas affected by conduit installation,

and all associated work, materials and equipment required to provide the intended operation. All jacking pits shall be adequately compacted immediately upon installing fill material and made safe for pedestrian access, and inspected by the Engineer prior to concrete or asphalt placement.

All conduit existing within excavation areas shall be lowered, modified and/or adjusted as required to accommodate the intended improvements at no additional compensation. The Contractor shall determine the exact location of all underground facilities within improvement area, by hand digging if necessary, and prior to commencing excavation work to assure avoidance of conflicts. All costs for preliminary exploratory work of existing conditions and subsequent utility modification shall be included in the lump sum bid item and no additional compensation shall be allowed.

Caltrans Std. Spec's. §86-1.02C and §87-1.03C
Pull Boxes and Installation of Pull Boxes:

Pull boxes shall conform to the provisions in the State Standard Specifications and these special provisions and comply with UL and NEMA standards. New pull boxes and covers in the sidewalk or behind the curb shall be lightweight fiber material, Christy "Fiberlyte", or Engineer approved equal.

All pull boxes shall be factory-made standard size No.5 pull boxes with extension unless otherwise noted on the plans or directed by the Engineer. The cover marking for each pull box shall read "TRAFFIC". Pull boxes shall be provided with locking mechanisms as specified in the State Standard Plans and shall be gray in color.

All pull boxes shall be located as shown on the plans and as directed by the Engineer. No pull box shall be located within the driveway apron, or within any wheelchair ramp landing. Pull boxes within unimproved areas shall have a Class 1 flexible Post Delineator, per Caltrans Standard Plan A73-C installed adjacent to the pull box. Within the pull box, the conduit shall be placed in a manner that the lowest portion of the opening shall be a minimum of 51 mm above the bottom of the pull box, the top portion of the opening shall be not less than 203 mm from the top of the pull box. The conduit shall be placed in a manner to allow the cable/wire to be pulled in a straight line and clear the side of the pull box by at least 51 mm.

Pull box Installation Details - The bottom of pull boxes installed in the ground or in sidewalk areas shall be bedded in at least 152 mm of crushed rock and shall be grouted prior to the installation of conductors. The grout shall be between 51 mm and 25 mm in depth and shall be sloped towards the drain hole. A layer of roofing paper shall be placed between the grout and the crushed rock sump. A 25 mm drain hole shall be provided in the center of the pull boxes or splice vault through the grout and the roofing paper.

Excavating and backfilling shall be as per section 87-1.03E, "Excavating and Backfilling for Electrical Systems" of the State Standard Specifications except that the backfill material shall not contain rocks graded larger than 25 mm.

Where the sump of an existing pull box is damaged by the Contractor's operations, the sump shall be reconstructed and if the sump was grouted, the old grout shall be removed,

and new grout placed at the cost of the Contractor and not the City. Any existing improvements damaged by the Contractor shall be in accordance with the State Standard Specifications at the cost of the Contractor and not the City.

Pull box Adjustments - The contractor shall adjust existing pull boxes where inadequate clearance is provided to accommodate the proposed cable and conductors, or where settling has occurred whereby the pull box grade is lower than the adjacent surface area grade at no additional cost to the City. Work shall conform to Caltrans Standard Specifications 87-1.03C. Pull box adjustment shall include the installation of new bushings, conduit end sealant, crushed rock and grout prior to the installation of conductors, and necessary concrete repair work. Old grout shall be removed, and new grout installed as required. Repair of adjacent PCC sidewalk shall be included, conforming to these specifications.

Caltrans Std. Spec's. §86-1.02F and §87-1.03F
Conductors and Cables and Conductors and Cables Installations:

Only the splicing of loop detector cable shall be permitted. All other conductors including interconnect cable shall be continuous without splicing between terminal points, without exception. Conductors No. 8 AWG or larger shall be spliced by the use of "C" shaped compression connectors. Splices shall be insulated by "Method B."

Caltrans Std. Spec's. §86-1.02F(1)(c)(ii)
Bonding Jumpers and Equipment Grounding Conductors:

Bonding and grounding of metal conduit shall conform to the provisions in Section 86-1.02F(1)(c)(ii) "Bonding Jumpers and Equipment Grounding Conductors," of the Caltrans Specifications, and these Special Provisions. Grounding jumper shall be attached by a 3/16 inch or larger brass bolt in the signal Standard or controller pedestal and shall be run to the conduit, ground rod or bonding wire in adjacent pull box. The grounding jumper shall be visible after the PCC cap has been poured on foundation.

Caltrans Std. Spec's. §86-1.02P(2)
Service Equipment Enclosures:

The contractor shall protect in place and reuse existing electrical service.

Caltrans Std. Spec's. §6-2.03B
Job Site Inspection and Testing:

It shall be the Contractor's responsibility to arrange the furnishing, testing, pick-up, and delivery of all items to the project site. Any costs involved to test, deliver and install equipment shall be borne by the Contractor and be considered as included in the lump sum price and no additional compensation shall be allowed.

Following notification, the Contractor must complete a satisfactory "turn-on" within a reasonable time of the day and hour specified in the notification. When a turn-on is not completed, as specified above, it shall be canceled and rescheduled with the Engineer. The turn-on shall not be made on Friday or the day preceding a legal holiday. The

Engineer shall be notified at least 48 hours prior to the intended turn-on and shall authorize the “turn-on” day and hour.

The installation resistance shall not be less than 100 Meg ohms on all circuits when the megger tests are performed. Testing shall not be conducted until all control and/or sensor units and probes have been disconnected from the circuit.

The signal monitoring unit shall be tested in the field before “turn-on”. Five days of continuous satisfactory operation as called for in Section 87-1.01D, “Quality Assurance,” of the Standard Specifications shall be provided.

Caltrans Std. Spec’s. §86-1.02Q(3)
Controller Cabinets:

Existing Type P-44 cabinet assembly shall be protected in place and reused. All necessary equipment required for modification of the traffic signal phasing such as load switches, and vehicle detector units shall be furnished and installed by the Contractor as shown on the plans. Contractor shall terminate new conductors in existing cabinet for intended operation.

Caltrans Std. Spec’s. §86-1.02R and §87-1.02R
Signal Heads:

All new circular & arrow indications shall conform to the ITE specification adopted 6/27/05 and 7/1/07, including Intertek LED Certification with ETL Verified Label & Warranty. The contractor shall provide proof of compliance with the ITE standard. A five-year warrantee shall be provided on all LED lenses furnished by the manufacturer. A Certificate of Compliance from the manufacturer shall be submitted to the Engineer, and a copy of the LED purchase order, product specification, certificate of compliance and warrantee. All incandescent traffic signal lamps in existing and relocated heads shall be removed and replaced with new LED lenses.

Mounting hardware configurations shall be approved by the Engineer prior to installation. Vehicle head mounting assemblies shall be configured and adjusted by the Contractor as directed by the Engineer at no additional contract cost.

The top opening of signal heads shall be sealed with a neoprene gasket. LED’s shall be products pre-qualified by the Caltrans’ Testing Laboratory. Signal mounting assemblies shall consist of Size 41 standard steel pipe or galvanized conduit, necessary fittings, slip-fitters and terminal compartments. Pipe fittings shall be ductile iron, galvanized steel, aluminum alloy Type AC-84B No. 380 or Bronze. Mast arm slip-fitters post top slip-fitters and terminal compartments shall be cast bronze or hot-dip galvanized ductile iron. After installation any exposed threads of galvanized conduit brackets and areas of the brackets damaged by wrench or vise jaws shall be cleaned with a wire brush and brush painted with 2 applications of approved un-thinned zinc-rich primer (organic vehicle type) conforming to the requirements in Section 91, “Paint”. Aerosol cans shall not be used. Existing heads shall be cleaned, poorly bonded paint removed w/ wire brush and painted black.

Caltrans Std. Spec's. §86-1.02S and §87-1.03S
Pedestrian Signal Heads:

Pedestrian signal heads shall be furnished and installed by the Contractor and shall be the ITE "Uniform Display" type "Countdown" Hand/Man pedestrian head or Engineer approved equal. The LED pedestrian heads shall be furnished with a 5-year warrantee from the manufacturer. A copy of the LED purchase order, product specification and warrantee shall be submitted to the Engineer.

Caltrans Std. Spec's. §86-1.02U and §87-1.03U
Push Button Assemblies:

Pedestrian and bike push button assemblies shall be the Polara Bulldog Round 3" stainless steel fully sealed assembly with LED and audible momentary beeper and hard enamel powder coat or engineer approved equal. The sign shall be attached and securely supported by the framework, and not extend beyond the framework. The display shall be international symbol without wording, mounted 40" high from the pedestrian landing surface. Face-plate screws shall be stainless steel tamper resistant. The contractor shall submit the PPB/BPB manufacture's specifications and warranty to the Engineer.

Caltrans Std. Spec's. §86-5
Detectors:

In addition to 86-5.01A(5) Installation Details, the following shall be added:

With reference to Curb Termination Detail Type A, ES-5E California Standard Plan, page 255, the excavation in the pavement adjacent to the curb and gutter section shall be backfilled with a combination of four inches (4") minimum thickness fine hot mix bituminous material with 5.6 percent by dry weight asphalt binder mixed with minimal aggregate over two inches (2") minimum thickness, 95 percent compacted sand tack coated on all contact surfaces. Entering saw-slot shall be deepened to allow both conduit and slack loop leads to be entire within the compacted sand. Neither asphalt nor epoxy is to be allowed to encase the loop leads. Provide and install new conduit for detector loop lead-ins as required.

If required, the Contractor shall test the detectors with a motor-driven cycle, as defined in the California Vehicle Code, that is licensed for street use by the Department of Motor Vehicles of the State of California. The unladen weight of the vehicle shall not exceed 220 pounds and the engine displacement shall not exceed 100 cubic centimeters. Special features, components or vehicles designed to activate the detector will not be permitted. The Contractor shall provide an operator who shall drive the motor-driven cycle through their response or detection area of the detector at not less than three (3) miles per hour nor more than seven (7) miles per hour. The detector shall provide an indication in response to this test.

The contractor shall install Type D loops as required and Type E loops for the rest including Advanced Detection. For presence detection contractor shall install following number of Type D loops per lane:

- Left-turn lane – 4 loops at 10 O.C.
- Thru lane – 2 Loops at 10 O.C.
- Right turn lane (if applicable) – 1 Delay Loop

All Front Row Presence loops shall be installed starting at 1 foot behind the limit line.

For Advanced detection, the contractor shall install 1 Type E loop per thru lane.

The Contractor shall test loops, associated wiring and splicing from the controller cabinet to assure continuity and shall establish that the signal and loops are fully actuated and operating as designed. The Contractor shall completely assess existing conditions and shall immediately notify the Engineer of any existing deviation from normal actuated signal operation in writing prior to start of work.

Loop wire shall be Type 1. Loop detector lead-in cable shall be Type B

All traffic loop detector installations shall be Type E and have a minimum one (1) inch cover conforming to Caltrans Standard Plan ES-5A and ES-5B.

Loops shall be installed 2 days following final A.C. work at intersections.

Loop conductors and epoxy shall be installed on the same day the loop slots are cut. The Contractor shall seal all loop slots with asphalt emulsion sealant or approved equal.

Slots in asphalt concrete pavement shall be filled with asphaltic concrete sealant as follows:

Temperature of sealant material during installation shall be above 70° F. Air temperature during installation shall be above 50° F. Sealant placed in the slots shall be compacted by use of an 8-inch diameter by 1/8-inch thick steel hand roller or other tool approved by the Engineer. Compacted sealant shall be flush with the pavement surface. Minimum conductor coverage shall be one inch. Excess sealant remaining after rolling shall not be reused. On completion of rolling, traffic will be permitted to travel over the sealant.

The Contractor shall determine if the existing loop lead-in conduit is adequate to accommodate the proposed loop wiring. Any increases in conduit size required to complete the work shall be included in the bid, and no additional compensation shall be allowed.

The Contractor shall contact the Engineer two (2) working days in advance for marking the locations of all existing loop detectors and adjusting signal timing prior to damaging or covering existing loops. The Engineer shall approve loop locations prior to installation; 6' Type E (circular) loops shall consist of 4 wraps.

Loop detectors shall be disconnected in adjacent pullbox prior to pavement removal or pavement milling operations.

701-17.8 Measurement and Payment

PART 8

LANDSCAPING AND IRRIGATION

SECTION 801 – INSTALLATION

[Add and/or replace the following:].

801-4 PLANTING

801-4.5.1 Root Pruning and Root Barrier

Where shown on attached spreadsheets, tree roots shall be cut and removed to a minimum depth of six inch (6") below the subgrade of proposed new construction. Root barriers shall be installed adjacent to the proposed new construction to existing trees of trunk diameters of more than six inches (6"). Installation of root barriers shall be per manufacturer's recommendations and guidelines under the following.

Root removals and barrier installation shall be completed on only one side of the tree where reconstruction is proposed.

Notify the Engineer if an abundant amount of roots has been removed or if roots are two (2) inches or more in diameter that are to be removed.

Root Pruning

Roots shall be pruned adjacent to the edge of the sidewalk, curb and gutter or other improvements as indicated by the Engineer. Root pruning cuts adjacent to the sidewalk shall be four inches (4") wide, twelve inches (12") deep, and minimum of eight feet (8') in each direction from the centerline of the tree as measured from the top of the sidewalk or other improvements. Root pruning cuts adjacent to the curb shall be four inches wide, eighteen inches (18") deep, and a minimum of eight feet (8') in each direction from the centerline of the tree as measured from the top of the curb or other improvements.

Root pruning equipment shall be specifically designed for this purpose with cutting teeth sharpened adequately to sever roots in a clean manner and equipped with padded tracks or rubber tires to prevent scarping or marking the sidewalk.

After the pruning cut has been completed, the Contractor shall install the appropriate amount of root pruning barrier by Deep Root Corporation, or an approved equal. All cuts shall be backfilled immediately upon completion of root pruning and barrier installation at each location. Backfill material shall consist of soil and/or mulch from root pruning and shall be free of rocks and other debris. All debris generated by these operations shall be immediately removed from the site and properly disposed of by the Contractor.

The Contractor shall repair or replace all utility service connections or sprinkler systems within the right-of-way that are damaged or removed as a result of the root pruning operation. Repairs shall be implemented immediately and completed by the end of the same working day. Repairs and replacements shall be at least equal quality and configuration to existing improvements and shall match them in finish and dimension.

The Contractor shall be responsible for contacting Underground Service Alert (USA) or Dig Alert by dialing “811” for locating underground utilities prior to the beginning of the root pruning operation.

Root pruning shall not take place if the tree has a lean. Notify the Engineer if a tree is leaning.

Root Barriers

The contractor shall furnish and install root control barrier. The root control barrier shall have a minimum depth of eighteen inch (18”) with a minimum thickness of 0.06”. Root control barriers shall be sixteen feet (16’) long in one continuous piece (preferred). Combinations of pieces shall be one eight foot (8’) panel and two – four foot (4’) panels; eight foot (8’) panel shall be on center of each tree and as directed by the Engineer. Root barriers shall be securely fastened with adhesive at joint points. All materials must be maintained in good condition from delivery to completion of installation. If any defects are found, the defected panes must be removed and replaced at no additional cost to the City. All other details for installation are detailed in the Standard Plan No. 523-2 of the current Standard Plans for Public Works Construction. No root control barriers are needed around existing palm trees.

The Contractor shall be responsible for protecting and supporting all existing utilities. When damage to existing utilities is caused by the Constrictor’s operations, the Contractor shall, at his expense, repair or replace damaged facilities promptly, in accordance with Section 5 and 306 of the Standard Specifications and the standards of each affected utility. Should the Contractor fail to perform the required repairs or replacements, the cost of performing such repairs or replacement by others shall be deducted from any monies due or to become due to the Contractor.

Root barriers shall not be installed on the non-lean side of a tree.

801-7 Measurement

801-8 Payment

BID ITEM No. 12: ROOT PRUNE AND INSTALL ROOT BARRIER

Measurement and Payment for “**Root Prune and Install Root Barrier**” shall be per the unit price bid per **Lineal Foot (LF)** for this item shall be made at the contact unit price bid per lineal foot of root barrier installed and shall include provisions for all excavation, cutting, removal, and disposal of existing root systems, and back fill required to install the root barrier. No further compensation will be allowed.

SECTION “F”

MISCELLANEOUS

CONTRACT

DOCUMENTS

(SAMPLE)

**CITY OF COSTA MESA
PUBLIC WORKS AGREEMENT FOR
CITY PROJECT NO. 21-03**

THIS PUBLIC WORKS AGREEMENT ("Agreement"), dated _____ ("Effective Date"), is made by the CITY OF COSTA MESA, a political subdivision of the State of California ("CITY"), and _____, a [state] [type of organization] ("CONTRACTOR").

CITY desires to construct the public work and improvements described below under Scope of Work, Paragraph 1 ("Work").

ACCORDINGLY, the parties hereto agree as follows:

1. SCOPE OF WORK.

The Work consists of _____.

The Work is further described in the "Contract Documents" referred to below.

The Project is known as the CITYWIDE PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT, City Project No. 21-03 ("Project").

2. CONTRACT DOCUMENTS.

The complete Agreement consists of the following documents relating to the Project:

- a. This Agreement;
- b. CONTRACTOR's bid;
- c. Notice inviting bids;
- d. Complete plans, profiles, detailed drawings and specifications, including general provisions and special provisions;
- e. Certificates of Insurance;

- f. Faithful Performance Bond and Labor and Material Bond, including agent's Power of Attorney for each bond;
- g. Supplements, attachments, and exhibits attached to the above items;
- h. Provisions of the most current edition of The Greenbook: Standard Specifications for Public Works Construction ("The Greenbook"); and
- i. All addenda setting forth any modifications or interpretations of the above documents.

The documents attached hereto are incorporated herein by this reference. The Greenbook is incorporated by reference as if fully set forth herein. The documents comprising the complete Agreement will be referred to as the "Contract Documents."

All of the Contract Documents are intended to complement one another, so that any Work called for in one and not mentioned in another is to be performed as if mentioned in all documents.

In the event of an inconsistency in the Contract Documents, the terms of this Agreement shall prevail over all other Contract Documents. The order of precedence between the remaining Contract Documents shall be as set forth in The Greenbook.

The Contract Documents constitute the entire agreement between the parties and supersede any and all other writings and oral negotiations.

3. CITY'S REPRESENTATIVE.

The CITY's Representative is _____, referred to herein as the Project Manager ("Project Manager").

4. CONTRACTOR'S PROJECT MANAGER; PERSONNEL.

(a) Project Manager. CONTRACTOR's Project Manager must be approved by City. Such approval shall be at CITY's sole discretion.

(b) Personnel. CITY has the right to review and approve any personnel

who are assigned to perform work under this Agreement. CONTRACTOR shall remove personnel from performing work under this Agreement if requested to do so by CITY.

This Paragraph 4 is a material provision of the Agreement.

5. SCHEDULE.

All Work shall be performed in accordance with the schedule approved on behalf of CITY by the Project Manager, and in accordance with the time of performance set forth in Paragraph 8 (Time of Performance).

6. EQUIPMENT - PERFORMANCE OF WORK.

CONTRACTOR shall furnish all tools, equipment, apparatus, facilities, labor and materials necessary to perform and complete the Work of construction in a good and workmanlike manner in strict conformity with the Contract Documents.

The equipment, apparatus, facilities, labor and material shall be furnished and such Work performed and completed as required in the plans and specifications to the satisfaction of the Project Manager or his or her designee, and subject to his or her approval.

7. CONTRACT PRICE.

_____ (\$_____.00).

8. TIME OF PERFORMANCE.

CONTRACTOR shall commence Work by the date specified in CITY's Notice to Proceed, unless a later date is agreed upon in writing by the parties. The Work shall be completed within _____ [working/calendar] days from the first day of commencement of the Work.

9. TERMINATION.

(a) Termination for Convenience.

CITY may terminate this Agreement at any time, with or without cause, by

providing thirty (30) days' written notice to CONTRACTOR.

(b) Termination for Breach of Contract.

(i) If CONTRACTOR refuses or fails to prosecute the Work or any severable part of it with such diligence as will ensure its timely completion, or if CONTRACTOR fails to complete the Work on time, or if CONTRACTOR, or any subcontractor, violates any of the provisions of the Contract Documents, the Project Manager may give written notice to CONTRACTOR and CONTRACTOR's sureties of the CITY's intention to terminate this Agreement; and, unless within five (5) days after the serving of that notice, such conduct shall cease and arrangements for the correction thereof be made to the satisfaction of the CITY, this Agreement may be terminated at the option of CITY effective upon CONTRACTOR's receipt of a second notice sent by the CITY indicating that the CITY has exercised its option to terminate.

(ii) If CONTRACTOR is adjudged bankrupt or files for any relief under the Federal Bankruptcy Code or State insolvency laws, this Agreement shall automatically terminate without any further action or notice by CITY.

(iii) If CONTRACTOR is in breach of any material provision of this Agreement, CITY may immediately terminate this Agreement by providing written notice to CONTRACTOR of same.

10. LIQUIDATED DAMAGES.

In the event the Work is not completed, for any reason, within the time required including any approved extensions of time, and to the satisfaction of the Project Manager, CITY may, in addition to any other remedies, equitable and legal, including remedies authorized by Paragraph 9 (Termination) of this Agreement, charge to CONTRACTOR or its sureties, or deduct from payments or credits due CONTRACTOR, a sum equal to **\$8,100** as liquidated damages for each calendar day beyond the date provided for the

completion of such Work.

The parties hereto agree that the amount set forth above, as liquidated damages constitutes a fair and reasonable estimate of the costs the CITY would suffer for each day that the CONTRACTOR fails to meet the performance schedule. The parties hereby agree and acknowledge that the delays in the performance schedule will cause CITY to incur costs and expenses not contemplated by this Agreement.

11. PERFORMANCE BY SURETIES.

In the event CONTRACTOR fails or refuses to perform the Work, CITY may provide CONTRACTOR with a notice of intent to terminate as provided in Paragraph 9 (Termination), of this Agreement. The CITY shall immediately give written notice of such intent to terminate to CONTRACTOR and CONTRACTOR's surety or sureties, and the sureties shall have the right to take over and perform this Agreement; provided, however, that the sureties must, within five (5) days after CITY's giving notice of termination, (a) give the CITY written notice of their intention to take over the performance of this Agreement; (b) provide adequate assurances, to the satisfaction of the CITY that the Work shall be performed diligently and in a timely manner; and (c) must commence performance thereof within five (5) days after providing notice to the CITY of their intention to take over the Work. Upon the failure of the sureties to comply with the provisions set forth above, CITY may take over the Work and complete it, at the expense of CONTRACTOR, and the CONTRACTOR and the sureties shall be liable to CITY for any excess costs or damages including those referred to in Paragraph 10 (Liquidated Damages), incurred by CITY. In such event, CITY may, without liability for so doing, take possession of such materials, equipment, tools, appliances, Contract Documents and other property belonging to CONTRACTOR as may be on the site of the Work and reasonably necessary therefor and may use them to complete the Work.

12. DISPUTES PERTAINING TO PAYMENT FOR WORK.

Should any dispute arise respecting whether any delay is excusable, or its duration, or the value of the Work done, or of any Work omitted, or of any extra Work which CONTRACTOR may be required to do, or respecting any payment to CONTRACTOR during the performance of this Agreement, such dispute shall be decided by the Project Manager, and his or her decisions shall be final and binding upon CONTRACTOR and its sureties.

13. SUPERINTENDENCE BY CONTRACTOR.

At all times during performance of the Work, CONTRACTOR shall give personal superintendence or have a competent foreman or superintendent on the worksite, with authority to act for CONTRACTOR.

14. INSPECTION BY CITY.

CONTRACTOR shall at all times maintain proper facilities and provide safe access for inspection by CITY to all parts of the Work and to all shops on or off-site where the Work or portions of the Work, are in preparation. CITY shall have the right of access to the premises for inspection at all times. However, CITY shall, at all times, comply with CONTRACTOR's safety requirements on the job site.

15. CARE OF THE WORK AND OFF-SITE AUTHORIZATION.

CONTRACTOR warrants that it has examined the site of the Work and is familiar with its topography and condition, location of property lines, easements, building lines and other physical factors and limitations affecting the performance of this Agreement. CONTRACTOR, at CONTRACTOR's sole cost and expense, shall obtain any permission, and all approvals, licenses, or easements necessary for any operations conducted off the premises owned or controlled by CITY. CONTRACTOR shall be responsible for the proper care and protection of all materials delivered to the site or stored off-site and for

the Work performed until completion and final inspection and acceptance by CITY. The risk, damage or destruction of materials delivered to the site or to Work performed shall be borne by CONTRACTOR.

16. PAYMENTS TO CONTRACTOR.

On or before the last Monday of each and every month during the performance of the Work, CONTRACTOR shall meet with the Project Manager or his or her designee to determine the quantity of pay items incorporated into the improvement during that month. A "Progress Payment Order" will then be jointly prepared, approved, and signed by the Project Manager and the CONTRACTOR setting forth the amount to be paid and providing for a five percent (5%) retention. Upon approval of the progress payment order by the Project Manager, or his or her designee, it shall be submitted to CITY's Finance Department and processed for payment by obtaining approval from the City Council to issue a warrant.

Within three (3) days following City Council's approval to issue a warrant, CITY shall mail to CONTRACTOR a warrant for the amount specified in the progress payment order as the amount to be paid. The retained five percent (5%) shall be paid to CONTRACTOR thirty-five (35) days after the recording of the Notice of Completion of the Work by the COUNTY and after CONTRACTOR shall have furnished releases of all claims against CITY by persons who furnished labor or materials for the Work, if required by CITY.

Upon the request of CONTRACTOR and at its expense, securities equivalent to the amount withheld pursuant to the foregoing provisions may be presented to CITY for substitution for the retained funds. If CITY approves the form and amount of the offered securities it will release the retained funds and will hold the securities in lieu thereof. CONTRACTOR shall be entitled to any interest earned on the securities.

In the event that claims for property damage or bodily injury are presented to CITY arising out of CONTRACTOR's or any subcontractor's Work under this Agreement; CITY shall give notice thereof to CONTRACTOR, and CONTRACTOR shall have thirty-five (35) days from the mailing of any such notice to evaluate the claim and to settle it by whole or partial payment, or to reject it, and to give notice of settlement or rejection to CITY. If CITY does not receive notice within the above-mentioned 35-day period that the claim has been settled, and if the Project Manager, after consultation with the City Attorney, determines that the claim is meritorious, CITY may pay the claim or a portion of it in exchange for an appropriate release from the claimant, and may deduct the amount of the payment from the retained funds that would otherwise be paid to CONTRACTOR upon completion of the Work; provided, however, that the maximum amount paid for any one claim pursuant to this provision shall be One Thousand Dollars (\$1,000.00), and the maximum amount for all such claims in the aggregate paid pursuant to this provision shall be Five Thousand Dollars (\$5,000.00).

17. PROMPT PAYMENT OF SUBCONTRACTORS.

The CONTRACTOR agrees to pay each subcontractor under this Agreement for satisfactory performance of its contract no later than seven (7) days from the receipt of each payment the CONTRACTOR receives from CITY.

The CONTRACTOR agrees further to release retainage payments to each subcontractor within thirty (30) days after the subcontractor's work is satisfactorily completed.

Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the CITY.

18. CONTRACT SECURITY AND GUARANTEE.

Unless previously provided by CONTRACTOR to CITY, CONTRACTOR shall

furnish, concurrently with the execution of this Agreement, the following: (1) a surety bond in an amount equal to one hundred percent (100%) of the contract price as security for the faithful performance of this Agreement, and (2) a separate surety bond in an amount equal to at least one hundred percent (100%) of the contract price as security for the payment of all persons furnishing labor or materials in connection with the Work under this Agreement. Sureties for each of the bonds and the forms thereof shall be satisfactory to CITY. In addition, such sureties must be authorized to issue bonds in California; sureties must be listed on the latest revision to the U.S. Department of the Treasury Circular 570; and must be shown to have sufficient bonding capacity to provide the bonds required by the Contract Documents.

CONTRACTOR shall provide a certified copy of the certificate of authority of the surety issued by the Insurance Commissioner; a certificate from the clerk of the county in which the court or officer is located that the certificate of authority of the surety has not been surrendered, revoked, canceled, annulled, or suspended or, in the event that it has, that renewed authority has been granted; and copies of the surety's most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10 (commencing with Section 900) of Chapter 1 of Part 2 of Division 1 of the Insurance Code.

CONTRACTOR guarantees that all materials used in the Work and all labor performed shall be in conformity with the Contract Documents including, but not limited to, the standards and specifications set forth in the most current edition of The Greenbook. CONTRACTOR shall, at its own expense, make any and all repairs and replacements that shall become necessary as the result of any failure of the Work to conform to the aforementioned Contract Documents, and standard specifications; provided, however, that CONTRACTOR shall be obligated under this provision only to the extent of those

failures or defects of which he is given notice within a period of twelve (12) months from the date that the Notice of Completion is recorded.

The rights and remedies available to CITY pursuant to this provision shall be cumulative with all rights and remedies available to CITY pursuant to statutory and common law, which rights and remedies are hereby expressly reserved, and neither the foregoing guarantee by CONTRACTOR nor its furnishing of the Bonds, nor acceptance thereof by CITY, shall constitute a waiver of any rights or remedies available to CITY against CONTRACTOR.

19. INDEMNIFICATION.

CONTRACTOR agrees to protect, defend, indemnify and hold harmless CITY and its elected and appointed boards, officers, agents, and employees from any and all claims, liabilities, expenses, or damages of any nature, including attorney fees, for injury to or death of any person, and for injury or damage to any property, including consequential damages of any nature resulting therefrom, arising out of or in any way connected with the performance of this Agreement. The defense obligation provided for hereunder shall apply without any advance showing of negligence or wrongdoing by the CONTRACTOR, its employees, and/or authorized subcontractors, but shall be required whenever any claim, action, complaint, or suit asserts as its basis the negligence, errors, omissions or misconduct of the CONTRACTOR, its employees, and/or authorized subcontractors, and/or whenever any claim, action, complaint or suit asserts liability against the CITY, its elected officials, officers, agents and employees based upon the work performed by the CONTRACTOR, its employees, and/or authorized subcontractors under this Agreement, whether or not the CONTRACTOR, its employees, and/or authorized subcontractors are specifically named or otherwise asserted to be liable. Notwithstanding the foregoing, the CONTRACTOR shall not be liable for the defense or

indemnification of the CITY for claims, actions, complaints or suits arising out of the sole active negligence or willful misconduct of the CITY. This provision shall supersede and replace all other indemnity provisions contained either in the CITY's specifications or CONTRACTOR's proposal, which shall be of no force and effect.

CONTRACTOR shall comply with all of the provisions of the Workers' Compensation insurance laws and Safety in Employment laws of the State of California, including the applicable provisions of Divisions 4 and 5 of the California Labor Code and all amendments thereto and regulations promulgated pursuant thereto, and all similar State, Federal or local laws applicable; and CONTRACTOR shall indemnify and hold harmless CITY from and against all claims, liabilities, expenses, damages, suits, actions, proceedings and judgments, of every nature and description, including attorney fees, that may be presented, brought or recovered against CITY for or on account of any liability under or failure to comply with any of said laws which may be incurred by reason of any Work performed under this Agreement by CONTRACTOR or any subcontractor or others performing on behalf of CONTRACTOR.

CITY does not, and shall not, waive any rights against CONTRACTOR which it may have by reason of the above hold harmless agreements, because of the acceptance by CITY or the deposit with CITY by CONTRACTOR of any or all of the insurance policies described in Paragraph 20 (Insurance) of this Agreement.

The hold harmless agreements by CONTRACTOR shall apply to all liabilities, expenses, claims, and damages of every kind (including but not limited to attorney fees) incurred or alleged to have been incurred, by reason of the operations of CONTRACTOR or any subcontractor or others performing on behalf of CONTRACTOR, whether or not such insurance policies are applicable. CONTRACTOR shall require any and all tiers of subcontractors to afford the same degree of indemnification to the CITY OF COSTA

MESA and its elected and appointed boards, officers, agents, and employees that is required of CONTRACTOR and shall incorporate identical indemnity provisions in all contracts between CONTRACTOR and all tiers of its subcontractors.

In the event that CONTRACTOR and CITY are sued by a third party for damages caused or allegedly caused by negligent or other wrongful conduct of CONTRACTOR, or by a dangerous condition of CITY's property created by CONTRACTOR or existing while the property was under the control of CONTRACTOR, CONTRACTOR shall not be relieved of its indemnity obligation to CITY by any settlement with any such third party unless that settlement includes a full release and dismissal of all claims by the third party against the CITY.

20. INSURANCE.

CONTRACTOR shall not commence Work under this Agreement until it has obtained all insurance required under this section and CITY has approved the insurance as to form, amount, and carrier, nor shall CONTRACTOR allow any subcontractor to commence any Work until all similar insurance required of the subcontractor has been obtained and approved.

Neither the failure of CONTRACTOR to supply specified insurance policies and coverage, nor the failure of CITY to approve same shall alter or invalidate the provisions of Paragraph 19 (Indemnification) of this Agreement.

(a) Workers' Compensation Insurance.

CONTRACTOR shall obtain and maintain during the life of this Agreement workers' compensation insurance and, if any Work is sublet, CONTRACTOR shall require all tiers of subcontractors to obtain workers' compensation insurance.

All workers' compensation insurance policies shall provide that the insurance may not be canceled without thirty (30) days' advance written notice of such

cancellation to CITY.

CONTRACTOR agrees to waive, and obtain endorsements from its workers' compensation insurer waiving, subrogation rights under its workers' compensation insurance policy against the CITY and to require each of its subcontractors, if any, to do likewise under their workers' compensation insurance policies.

(b) Liability Insurance Coverage.

CONTRACTOR shall obtain and maintain during the life of this Agreement the following insurance coverage:

(i) Commercial General Liability, including coverage for premises-operations, products/completed operations hazard, blanket contractual, broad form property damage, and independent contractors. In addition, CONTRACTOR shall obtain and maintain during the life of this Agreement each of the following insurance coverage which are not stricken out and initialed by the Project Manager: Explosion and collapse hazard, underground hazard, personal injury, and automobile liability, including owned, hired, and non-owned vehicles. All insurance coverage shall have limits of not less than \$1,000,000.00 combined single limits, per occurrence and aggregate.

(ii) Below are approved endorsements which satisfy the basic insurance requirements contained in contracts entered into by City of Costa Mesa. These have been approved by the City Attorney's Office. The terms of any specific contract with the City are controlling. Prior to the commencement of any work, the City requires that the Engineer receive Certificates of Insurance in DUPLICATE for liability coverage of at least \$1,000,000.00 combined single limits, per occurrence and in the aggregate. Endorsements to the policies providing the above insurance shall be obtained by CONTRACTOR, adding the following three provisions:

(1) Additional Insured:

“The City of Costa Mesa and its elected and appointed boards, officers, agents, and employees are additional insureds with respect to the subject project and agreement.”

(2) Notice:

“Said policy shall not terminate, nor shall it be canceled nor the coverage reduced, until thirty (30) days after written notice is given to CITY.”

(3) Other Insurance:

“Any other insurance maintained by the City of Costa Mesa shall be excess and not contributing with the insurance provided by this policy.”

If any of such policies provide for a deductible or self-insured retention to provide such coverage, the amount of such deductible or self-insured retention shall be approved in advance by CITY. No policy of insurance issued as to which the CITY is an additional insured shall contain a provision which requires that no insured except the named insured can satisfy any such deductible or self-insured retention.

21. PROOF OF INSURANCE.

Prior to commencement of the Work, CONTRACTOR shall furnish CITY, through the Project Manager, proof of compliance with the above insurance requirements in a form satisfactory to the Risk Management.

22. LEGAL WORK DAY - PENALTIES FOR VIOLATION.

Eight (8) hours of labor shall constitute a legal day's work during any one (1) calendar day. CONTRACTOR shall forfeit to CITY the sum of Twenty-Five Dollars (\$25.00) for each workman employed in the execution of this Agreement by CONTRACTOR or by any subcontractor for each calendar day during which such workman is required or permitted to work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of California Labor Code Sections

1810 through 1815, inclusive.

23. PREVAILING WAGE SCALE.

CONTRACTOR shall comply in all respects with the Davis-Bacon Act (40 U.S.C. section 276a) and with California Labor Code sections 1770 et seq., including the keeping of all records required by the provisions of Labor Code section 1776.

CONTRACTOR shall furnish each week to CITY's Project Administration Division a statement with respect to the wages of each of its employees during the preceding weekly payroll period.

24. COMPLIANCE WITH ALL LAWS.

CONTRACTOR shall, at its own cost and expense, comply with all applicable local, state, and federal laws, regulations, and requirements in the performance of this Agreement, including but not limited to laws regarding health and safety, labor and employment, and wage and hours.

25. DRUG-FREE WORKPLACE POLICY.

CONTRACTOR, upon notification of the award of this Agreement, shall establish a Drug-Free Awareness Program to inform employees of the dangers of drug abuse in the workplace, the penalties that may be imposed upon employees for drug abuse violations occurring in the workplace, and the employee assistance programs available to employees. Each employee engaged in the performance of a CITY contract must be notified of this Drug-Free Awareness Program, and must abide by its terms. CONTRACTOR shall conform to all the requirements of CITY's Policy No. 100-5, attached hereto as Attachment 1. Failure to establish a program, notify employees, or inform the CITY of a drug-related workplace conviction will constitute a material breach of contract and cause for immediate termination of the contract by the CITY.

26. NON-DISCRIMINATION.

In performing this Agreement, CONTRACTOR will not engage in, nor permit its agents to engage in, discrimination in employment of persons because of their race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status or sex, or sexual orientation, except as permitted pursuant to Section 12940 of the Government Code. Violation of this provision may result in the imposition of penalties referred to in Section 1735 of the California Labor Code.

27. CONTRACT ASSURANCE.

The CONTRACTOR or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The CONTRACTOR shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the CONTRACTOR to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as recipient deems appropriate.

The CONTRACTOR will require that the above provision is included in all subcontracts.

28. PROVISIONS CUMULATIVE.

The provisions of this Agreement are cumulative and in addition to, and not in limitation of, any other rights or remedies available to CITY.

29. NOTICES.

It shall be the duty and responsibility of CONTRACTOR to notify all tiers of subcontractors and material men of the following special notice provision; namely, all preliminary 20-day notices or stop notices shall be directed only to the City Clerk and to no other department, and shall be either personally delivered or sent by certified mail, postage prepaid.

All other notices shall be in writing and delivered in person or sent by certified mail, postage prepaid. Notices required to be given to CITY pursuant to this Agreement shall be addressed as follows:

City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92626
Attn: _____

Notices required to be given to CONTRACTOR shall be addressed as follows:

Attn: _____

Notices required to be given to CONTRACTOR's sureties shall be addressed as follows:

Attn: _____

30. INDEPENDENT CONTRACTOR.

The parties hereto acknowledge and agree that the relationship between CITY and CONTRACTOR is one of principal and independent contractor and no other. All personnel to be utilized by CONTRACTOR in the performance of this Agreement shall be employees of CONTRACTOR and not employees of the CITY. CONTRACTOR shall pay all salaries and wages, employer's social security taxes, unemployment insurance and similar taxes relating to employees and shall be responsible for all applicable withholding taxes. Nothing contained in this Agreement shall create or be construed as creating a partnership, joint venture, employment relations, or any other relationship except as set forth between the parties. The parties specifically acknowledge and agree that CONTRACTOR is not a partner with CITY, whether general or limited, and no activities of CITY or CONTRACTOR or statements made by CITY or CONTRACTOR shall be

interpreted by any of the parties hereto as establishing any type of business relationship other than an independent contractor relationship.

31. PERS ELIGIBILITY INDEMNIFICATION.

In the event that CONTRACTOR or any employee, agent, or subcontractor of CONTRACTOR providing services under this Agreement claims or is determined by a court of competent jurisdiction or the California Public Employees' Retirement System (PERS) to be eligible for enrollment in PERS as an employee of the CITY, CONTRACTOR shall indemnify, defend, and hold harmless CITY for the payment of any employee and/or employer contributions for PERS benefits on behalf of CONTRACTOR or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of CITY.

Notwithstanding any other agency, state or federal policy, rule, regulation, law or ordinance to the contrary, CONTRACTOR and any of its employees, agents, and subcontractors providing service under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any claims to, any compensation, benefit, or any incident of employment by CITY, including but not limited to eligibility to enroll in PERS as an employee of CITY and entitlement to any contribution to be paid by CITY for employer contribution and/or employee contributions for PERS benefits.

32. VALIDITY.

The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any of the other provisions of this Agreement.

33. GOVERNING LAW.

This Agreement shall be governed by and construed in accordance with the laws of the State of California. Any legal action relating to or arising out of this Agreement shall be subject to the jurisdiction of the County of Orange, California.

34. NO THIRD PARTY BENEFICIARY RIGHTS.

This Agreement is entered into for the sole benefit of the CITY and CONTRACTOR and no other parties are intended to be direct or incidental beneficiaries of this Agreement and no third party shall have any right in, under or to this Agreement.

35. ASSIGNABILITY.

This Agreement may not be sold, transferred or assigned by either party, or by operation of law, to any other person or persons or business entity, without the other party's written permission. Any such sale, transfer or assignment, or attempted sale, transfer or assignment without written permission, may be deemed by the other party to constitute a voluntary termination of this Agreement and this Agreement shall thereafter be deemed terminated and void.

36. WAIVER.

No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought referring expressly to this Paragraph. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

37. HEADINGS.

Section and subsection headings are not to be considered part of this Agreement, are included solely for convenience, and are not intended to modify or explain or to be a full or accurate description of the content thereof.

38. COUNTERPARTS.

This Agreement may be executed in one or more counterparts by the parties hereto. All counterparts shall be construed together and shall constitute one Agreement.

39. CORPORATE AUTHORITY.

The persons executing this Agreement on behalf of the Parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said Parties and that by doing so, the Parties hereto are formally bound to the provisions of this Agreement.

40. ADDITIONAL SERVICES.

CONTRACTOR shall not receive compensation for any services provided outside the scope of the Contract Documents unless such additional services, including change orders, are approved in writing by CITY prior to CONTRACTOR performing the additional services.

It is specifically understood that oral requests or approvals of such additional services, change orders or additional compensation and any approvals from CITY shall be barred and are unenforceable.

[Signatures appear on following page.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers, as of the date first above written.

CITY OF COSTA MESA,
A municipal corporation

Lori Ann Farrell Harrison
City Manager

Date: _____

CONTRACTOR

Signature

Date: _____

Name and Title

Signature

Date: _____

Name and Title

Social Security or Taxpayer ID Number

ATTEST:

Brenda Green
City Clerk

Date: _____

APPROVED AS TO FORM:

Kimberly Hall Barlow
City Attorney

Date: _____

APPROVED AS TO INSURANCE:

Ruth Wang
Risk Management

Date: _____

APPROVED AS TO PURCHASING:

Carol Molina
Finance Director

Date: _____

DEPARTMENTAL APPROVAL:

Raja Sethuraman
Public Services Director

Date: _____

Seung Yang, P.E.
City Engineer

Date: _____

CITY OF COSTA MESA, CALIFORNIA

COUNCIL POLICY

SUBJECT	POLICY NUMBER	EFFECTIVE DATE	PAGE
DRUG-FREE WORKPLACE	100-5	8-8-89	1 of 3

BACKGROUND

Under the Federal Drug-Free Workplace Act of 1988, passed as part of omnibus drug legislation enacted November 18, 1988, contractors and grantees of Federal funds must certify that they will provide drug-free workplaces. At the present time, the City of Costa Mesa, as a sub-grantee of Federal funds under a variety of programs, is required to abide by this Act. The City Council has expressed its support of the national effort to eradicate drug abuse through the creation of a Substance Abuse Committee, institution of a City-wide D.A.R.E. program in all local schools and other activities in support of a drug-free community. This policy is intended to extend that effort to contractors and grantees of the City of Costa Mesa in the elimination of dangerous drugs in the workplace.

PURPOSE

It is the purpose of this Policy to:

1. Clearly state the City of Costa Mesa's commitment to a drug-free society.
2. Set forth guidelines to ensure that public, private, and nonprofit organizations receiving funds from the City of Costa Mesa share the commitment to a drug-free workplace.

POLICY

The City Manager, under direction by the City Council, shall take the necessary steps to see that the following provisions are included in all contracts and agreements entered into by the City of Costa Mesa involving the disbursement of funds.

1. Contractor or Sub-grantee hereby certifies that it will provide a drug-free workplace by:
 - A. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in Contractor's and/or sub-grantee's workplace, specifically the job site or location included in this contract, and specifying the actions that will be taken against the employees for violation of such prohibition;
 - B. Establishing a Drug-Free Awareness Program to inform employees about:

SUBJECT	POLICY NUMBER	EFFECTIVE DATE	PAGE
DRUG-FREE WORKPLACE	100-5	8-8-89	2 of 3

1. The dangers of drug abuse in the workplace;
 2. Contractor's and/or sub-grantee's policy of maintaining a drug-free workplace;
 3. Any available drug counseling, rehabilitation and employee assistance programs; and
 4. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- C. Making it a requirement that each employee to be engaged in the performance of the contract be given a copy of the statement required by subparagraph A;
- D. Notifying the employee in the statement required by subparagraph 1 A that, as a condition of employment under the contract, the employee will:
1. Abide by the terms of the statement; and
 2. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction;
- E. Notifying the City of Costa Mesa within ten (10) days after receiving notice under subparagraph 1 D 2 from an employee or otherwise receiving the actual notice of such conviction;
- F. Taking one of the following actions within thirty (30) days of receiving notice under subparagraph 1 D 2 with respect to an employee who is so convicted:
1. Taking appropriate personnel action against such an employee, up to and including termination; or
 2. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health agency, law enforcement, or other appropriate agency;

SUBJECT	POLICY NUMBER	EFFECTIVE DATE	PAGE
DRUG-FREE WORKPLACE	100-5	8-8-89	3 of 3

- G. Making a good faith effort to maintain a drug-free workplace through implementation of subparagraphs 1 A through 1 F, inclusive.
2. Contractor and/or sub-grantee shall be deemed to be in violation of this Policy if the City of Costa Mesa determines that:
 - a. Contractor and/or sub-grantee has made a false certification under paragraph 1 above;
 - b. Contractor and/or sub-grantee has violated the certification by failing to carry out the requirements of subparagraphs 1 A through 1 G above;
 - c. Such number of employees of Contractor and/or sub-grantee have been convicted of violations of criminal drug statutes for violations occurring in the workplace as to indicate that the contractor and/or sub-grantee has failed to make a good faith effort to provide a drug-free workplace.
3. Should any contractor and/or sub-grantee be deemed to be in violation of this Policy pursuant to the provisions of 2 A, B, and C, a suspension, termination or debarment proceeding subject to applicable Federal, State, and local laws shall be conducted. Upon issuance of any final decision under this section requiring debarment of a contractor and/or sub-grantee, the contractor and/or sub-grantee shall be ineligible for award of any contract, agreement or grant from the City of Costa Mesa for a period specified in the decision, not to exceed five (5) years. Upon issuance of any final decision recommending against debarment of the contractor and/or sub-grantee, the contractor and/or sub-grantee shall be eligible for compensation as provided by law.

**LABOR AND MATERIALS PAYMENT BOND
TO ACCOMPANY CONTRACT PUBLIC WORK**

WHEREAS, the City of Costa Mesa, State of California, has awarded to _____, hereinafter designated as the "Principal", a contract for the project known as: _____ in the City of Costa Mesa, in strict conformity with the contract on file with the Costa Mesa City Clerk, which is incorporated herein by this reference.

WHEREAS, Principal has executed or is about to execute the contract and the terms thereof and California Civil Code section 9554 require the furnishing of a bond, providing that if Principal or any of Principal's subcontractors fails to pay for any materials, provisions, or other supplies used in, upon, for, or about the performance of the work agreed to be done, or for any work or labor done thereon of any kind, the Surety on this bond will pay the same to the extent hereinafter set forth.

NOW, THEREFORE, We, the undersigned Principal, and _____, duly authorized to transact business under the laws of the State of California, as Surety (referred to herein as "Surety"), are held and firmly bound unto the City of Costa Mesa, in the sum of _____ Dollars (\$_____) lawful money of the United States of America, said sum being equal to 100% of the estimated amount payable to the City of Costa Mesa under the terms of the contract, for which payment well and truly to be made, we bind ourselves, our heirs, executors, executors, and administrators, successors and assigns, jointly and severally, firmly by these present.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Principal or the Principal's subcontractors fail to pay for any materials, provisions, or other supplies, implements or machinery used in, upon, for, or about the performance of the work contracted to be done, or for any other work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Employment Development Department from the wages of employees of the Principal and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, then the Surety will pay for the same, in an amount not exceeding the sum specified in this Bond, and also, in case suit is brought to enforce the obligations of this Bond, a reasonable attorneys' fees, to be fixed by the Court as required by the provisions of Section 9554 of the California Civil Code.

This bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 9100 of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond. And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument has been duly executed by the above-named Principal and Surety, on the _____ day of _____, 20____.

Name of Contractor (Principal)

Authorized Signature/Title

Name of Surety

Authorized Agent Signature

Address of Surety

Print Name and Title

FAITHFUL PERFORMANCE BOND _____
PUBLIC WORK

(The premium charge on this bond is \$ _____, being at
the rate of \$ _____ per thousand of the contract price)

KNOW ALL MEN BY THESE PRESENTS:

THAT, WHEREAS the CITY OF COSTA MESA, 77 Fair Drive, Costa Mesa, California 92626, has
entered into a contract dated _____, 20 _____, which is hereby incorporated by reference
herein, with _____
hereinafter designated as the "Principal," for the work described as follows:

_____ ; and

WHEREAS, said Principal is required by the terms of said contract to furnish a bond for the
faithful performance of said contract.

NOW, THEREFORE, We the Principal, and _____
a corporation organized and existing under the laws of the State of _____ and duly
authorized to transact business under the laws of the State of California, as Surety, are held and
firmly bound unto the CITY OF COSTA MESA in the penal sum of _____
_____ Dollars (\$ _____), lawful money of the United States, for the payment of
which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and
successors, jointly and severally, firmly by these presents.

The Condition Of This Obligation Is Such, That, if the above bounden Principal, his or its heirs,
executors, administrators. successors or assigns, shall in all things stand to and abide by, and well and
truly keep and perform the covenants, condition and agreements in the said contract and any alteration
thereof made as therein provided, or his or their part, to be kept and performed at the time and in the
manner therein specified, and in all respects according to their true intent and meaning, and shall
indemnify and save harmless the CITY OF COSTA MESA, its officers and agents, as therein stipulated,
then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of
time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the
specifications accompanying the same shall in any wise affect its obligations on this bond, and it does hereby
waive notice of any such change, extension of time, alteration or addition to the terms of **the** contract or the
work or to the specifications.

IN WITNESS WHEREOF. We have hereunto set our hands and seals this _____
day of _____, 20 _____

INSURANCE REQUIREMENT FOR CITY OF COSTA MESA

CONTRACTOR shall not commence Work under this Agreement until he has obtained all insurance required under this section and CITY has approved the insurance as to form, amount, and carrier, nor shall CONTRACTOR allow any subcontractor to commence any Work until all similar insurance required of the subcontractor has been obtained and approved.

Neither the failure of CONTRACTOR to supply specified insurance policies and coverage, nor the failure of CITY to approve same shall alter or invalidate the provisions of Paragraph 18 of this Agreement.

A. Workers' Compensation Insurance.

CONTRACTOR shall obtain and maintain during the life of this Agreement workers' compensation insurance and, if any Work is sublet, CONTRACTOR shall require all tiers of subcontractors to obtain workers' compensation insurance.

All workers' compensation insurance policies shall provide that the insurance may not be canceled without thirty (30) days' advance written notice of such cancellation to CITY.

CONTRACTOR agrees to waive, and obtain endorsements from its workers' compensation insurer waiving, subrogation rights under its workers' compensation insurance policy against the CITY and to require each of its subcontractors, if any, to do likewise under their workers' compensation insurance policies.

B. Liability Insurance Coverage.

CONTRACTOR shall obtain and maintain during the life of this Agreement the following insurance coverage:

(1) Commercial General Liability, including coverage for premises-operations, products/completed operations hazard, blanket contractual, broad form property damage, and independent contractors. In addition, CONTRACTOR shall obtain and maintain during the life of this Agreement each of the following insurance coverage which are not stricken out and initialed by the Project Manager: Explosion and collapse hazard, underground hazard, personal injury, and automobile liability, including owned, hired, and non-owned vehicles. All insurance coverage shall have limits of not less than \$1,000,000.00 combined single limit, per occurrence and aggregate.

(2) Below are approved endorsements which satisfy the basic insurance requirements contained in contracts entered into by City of Costa Mesa. These have been approved by the City Attorney's office. The terms of any specific contract with the City are controlling. Prior to the commencement of any work, the City requires that the Engineer receive Certificates of Insurance in DUPLICATE for liability coverage of at least \$1,000,000 combined single limit, per occurrence and in the aggregate. Endorsements to the policies providing the above insurance shall be obtained by CONTRACTOR, adding the following three provisions:

(i) Additional Insured:

The City of Costa Mesa and their elected and appointed boards, officers, agents, employees, are additional insureds with respect to the subject project and agreement.

(ii) Notice:

"Said policy shall not terminate, nor shall it be canceled nor the coverage reduced, until thirty (30) days after written notice is given to CITY "

(iii) Other Insurance:

"Any other insurance maintained by the City of Costa Mesa shall be excess and not contributing with the insurance provided by this policy."

If any of such policies provide for a deductible or self-insured retention to provide such coverage, the amount of such deductible or self-insured retention shall be approved in advance by City. No policy of insurance issued as to which the City is an additional insured shall contain a provision which requires that no insured except the named insured can satisfy any such deductible or self-insured retention.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No. Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A :	
INSURED	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES**CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A					<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – SCHEDULED PERSON OR
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location(s) Of Covered Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

A. Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured(s) at the location(s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to "bodily injury" or "property damage" occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
2. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

ANY PERSON OR ORGRANIZATION FROM WHOM YOU ARE REQUIRED BY WRITTEN CONTRACT OR
AGREEMENT TO OBTAIN THIS WAIVER OF RIGHTS FROM US.

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph 8. **Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions:**

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT - CALIFORNIA

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be 2% of the California workers' compensation premium otherwise due on such remuneration.

SCHEDULE

PERSON OR ORGANIZATION

ANY PERSON OR ORGANIZATION FOR WHOM THE
NAMED INSURED HAS AGREED BY WRITTEN
CONTRACT TO FURNISH THIS WAIVER

JOB DESCRIPTION

BLANKET WAIVER OF SUBROGATION

SAMPLE

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.
(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective: ZZ/ZZ/2014

Policy No. GPVGT"

Endorsement No. 001

Insured: Contractors Name

Premium \$ INCL.

Insurance Company: Insurance Company

Countersigned By: _____

City of Costa Mesa, Department of Public Services
Application and Permit for Work Described Below

PERMIT NO.

VENDOR NO.

Address or Location of Work _____ Date _____

Type of Work to be Done _____

Start Date _____ Permit Not Valid After _____ (Expiration Date) Plan No. _____

Contractor's Name _____ Address _____

Telephone No. (Day) _____ (Night) _____ City and State _____

State License No./Class _____ City Business License No. _____

Applicant's Name _____ Address _____

Telephone No. _____ Developer's Name _____ Telephone No. _____

Name of Insurance Co. _____ Insurance Cert. No.(s) _____

24-Hour Emergency Contact _____ Telephone No. _____

<p>Bond \$ _____</p> <p>Cash Deposit \$ _____</p> <p>Issuance \$ _____</p> <p>Inspection \$ _____</p> <p>TOTAL \$ _____</p>	<p>48 HOURS MINIMUM REQUIRED FOR PROCESSING PERMIT</p> <p>Account # </p>	<p align="center">PERMIT APPROVED FOR CITY ENGINEER</p> <p>By _____</p> <p>Date _____</p> <p>Underground Service Alert ID No. _____</p>
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Permittee shall contact the City Inspector's office (754-5025) at least 24 hours prior to commencing any work. Failure to obtain proper inspections prior to commencement of work may be cause for its rejection. **THIS PERMIT WITH APPROVED PLANS MUST BE ON THE JOB AND AVAILABLE TO CITY REPRESENTATIVES AT ALL TIMES.** You are guided by Municipal Code Sections 1-33, 15 -25,-15-27, 15-27.1, 15-39 and 15-48.

THE UNDERSIGNED PERMITTEE HEREBY CERTIFIES:

1. That all work shall be performed in accordance with the **Standard Specifications for Public Works Construction** (latest edition); Standard Drawings of the City of Costa Mesa; special agency provisions; and all applicable laws and ordinances.
2. Control of traffic shall conform to the **Work Area Traffic Control Handbook** (W.A.T.C.H.) (latest edition). The permittee shall furnish and/or install all signs, lights, barricades, traffic control or warning devices, flagmen and flashing arrow board. The permittee shall obtain approval of the Transportation Services Engineer for all street closures, detours, turn restrictions, parking prohibitions and methods of accommodating traffic. The permittee shall notify Emergency, Fire and Police services and residents or businesses twenty-four (24) hours in advance of any access limitation or traffic restrictions.
3. That a maximum of _____ lane(s) may be closed if necessary to perform work within the public right of way during the hours of **8:30 a.m. - 3:30 p.m. Monday through Friday** as long as traffic can be maintained in each direction with flagmen unless otherwise approved by the Transportation Services Engineer.
4. That throughout all phases of construction the work site shall be kept clean and free of rubbish, debris and dust and drainage shall be maintained.

SUBJECT TO THE NOTES BELOW: (Inspection fees over the basic inspection time will be billed at the approved hourly rate.)

1. City will provide inspection between 7:30 a.m. and 3:00 p.m., Monday through Friday (except on City observed holidays).
2. Prior to placing Portland Cement Concrete or Asphalt Concrete (A.C.), the following will have been inspected and approved; native ☐ and imported ☐.
3. **Curb and gutter shall not be removed on the day prior to a weekend or a City observed holiday.**
4. Fill in areas left by curb and gutter removal flush with the adjacent pavement on the same day that removal occurs.
5. Bore under all streets, curbs and gutters, sidewalks, cross-gutters and driveway approaches. Tunneling is not allowed.
6. Open excavations must be backfilled or plated with spikes and A.C. tacked around edges during non-working hours.
7. Sidewalk shall be constructed per City of Costa Mesa Standard Drawing No. _____.
8. Driveway approach shall be constructed per City of Costa Mesa Standard Drawing No. _____.
9. No traffic allowed on concrete for minimum of seven days for curing. See traffic control above.
10. Trench compaction and resurfacing shall conform to City of Costa Mesa Standard Drawing No. 813.
11. Trenches exceeding five (5) feet in depth require a permit from the Division of Industrial Safety, State of California.
12. Permittee shall pay for all S.E., compaction and materials tests deemed necessary by the City.
13. All trenches shall be permanently patched within ten (10) days of completion of work below subgrade.
14. Permittee shall provides the City with record drawings of permitted work before final inspection by the City.
15. Permittee understands and agrees to the hold-harmless agreement required by CMMC Section 15-27 and printed on the reverse of this application.
16. Other: _____

NOTICE: Contractor must notify the following Utility Companies two working days before starting work:

Costa Mesa Sanitary District
(714) 631-1731

Mesa Consolidated Water District
(714) 631-1200

UNDERGROUND SERVICE ALERT
Toll Free - 1-800-422-4133; After Hours & Holidays - (714) 739-3031; (213) 621-3111

INSPECTION RECORD		Inspector of Records	<p>CERTIFICATE OF INSPECTION</p> <p>I hereby certify that the street work allowed by this permit has been constructed according to the plans and specifications and I hereby accept the work in this manner.</p> <p>By: _____</p> <p align="center">Inspector</p> <p align="center">_____</p> <p align="center">Date</p>
Date			

0183-62 mw, rev. 2/03
 White - Inspectors;
 Canary - Engineering;
 Pink - Finance
 Goldenrod - Applicant

I certify I have read and understand all of the above and that all statements made are correct and complete.

Applicant's Signature _____ Date _____

3 COPIES OF SKETCHES OR PLANS ARE REQUIRED PRIOR TO PERMIT ISSUANCE
THIS APPLICATION BECOMES A PERMIT WHEN APPROVED AND VALIDATED



APPLICATION FOR BUSINESS LICENSE
SEND YOUR CHECK MADE PAYABLE TO THE CITY OF COSTA MESA
TREASURY MANAGEMENT DIVISION, PO BOX 1200, COSTA MESA, CA 92628-1200
(714) 754-5234 TDD: (714) 754-5244

Business Name _____

Parent Company Name _____
(If Corporate Owned)

Note: Business address will be compared to zoning requirements before approval. Check with the Planning Division regarding the use of the location at (714) 754-5245.

Business Address _____
(Cannot be a P.O. Box)

Street #	Street name	Unit #	City	State	Zip
----------	-------------	--------	------	-------	-----

Mailing Address _____
(Can be a P.O. Box)

Street #	Street name	Unit #	City	State	Zip
----------	-------------	--------	------	-------	-----

Business Telephone # () _____ Business Start Date _____ No. of Employees (on average) _____

Ownership (Check One only)
☐ Sole Owner ☐ Corporation ☐ Partnership ☐ Husband & Wife Co-ownership ☐ Limited Liability Company
☐ Limited Liability Partnership

Seller's Permit No. _____ Contractors State No. & Class _____
(If Applicable) (If Applicable)

Federal Employer ID # or, Owner's Social Security # _____ Federal Firearms License # (if applicable) _____

OWNER'S OR PRINCIPAL'S NAME(S)

Name _____	Name _____
Home Address _____	Home Address _____
City _____ Zip _____	City _____ Zip _____
Telephone # () _____ Title _____	Telephone # () _____ Title _____
Drivers License No. _____ Date of Birth _____	Drivers License No. _____ Date of Birth _____

TYPE OF BUSINESS

PLEASE CIRCLE ONE: Wholesale/Retail/Manufacturing/Services/Non-Profit/Administrative Only/Warehouse/ Other

Fully Describe Business Operation: _____
_____ Standard Industrial Class Code (SIC) _____

Alcohol Beverage Control Permit No. _____ (If Applicable)	Department of Motor Vehicles Permit # _____ (Required for automobile/motorcycle sales businesses)
Hours of Operation (M-F) _____ (S-SU) _____ (Commercial/Industrial only)	Number of Rental Units/Rooms/Spaces _____ (If Applicable)

CHOOSE ONE OF THE APPROPRIATE FEES BELOW

GENERAL BUSINESS
(wholesale, retail, professional, Etc.)

Enter Annual Gross Receipts Amount \$ _____

And Circle the corresponding category below

Annual Gross Receipts	Tax
\$0.00 to 1,000.00	\$0.00
\$1,000.01 to 25,000.00	\$25.00
\$25,000.01 to 40,000.00	\$35.00
\$40,000.01 to 75,000.00	\$45.00
\$75,000.01 to 200,000.00	\$60.00
\$200,000.01 to 500,000.00	\$100.00
Over 500,000.00	\$200.00

TAX EXEMPT ORGANIZATIONS
Attach proof of Tax Exempt Status (required for waiver of tax due)

SHOW, EXHIBITION, SWAP MEET Tax on the Promoter's Gross Receipts from the Gross Receipts schedule to the left
.....Enter the tax due amount here \$ _____
PLUS(# of sellers _____ x \$5 = \$ _____)
EQUALSTotal tax due \$ _____

ADMINISTRATIVE OFFICES/WAREHOUSES
(Fees based on annual operating expenses when no receipts generated)
Enter annual operating expenses amount \$ _____
Use Gross Receipts schedule to the left to determine business license tax.

CONTRACTOR
(California Licensed) Total tax due **\$50.00**

VEHICLE WHEEL, TAXI, TOW TRUCK, BUS
Number of Vehicles: _____ x \$25.00 = Total Tax Due \$ _____

Will you store, handle or use 55 gallons, 500 pounds or 200 cubic feet of hazardous materials per year?	Yes _____	No _____
Will you have an assembly room with an occupant load of 50 or more persons?	Yes _____	No _____
Will you be installing a spray booth?	Yes _____	No _____
Will your business produce dust/wood shavings or other material?	Yes _____	No _____
Will you be storing or using flammable or combustible liquids or compressed gases?	Yes _____	No _____
Will you be warehousing materials higher than 12 feet?	Yes _____	No _____

Fire Department approval required for any **"Yes"** answer. Please make an appointment by calling (714) 327-7400.

Your Business License will be issued under the provisions of Municipal Code Section 9-1. You are cautioned that this License does not permit operation of a business in violation of other Municipal Code Sections. There will be no tax refund if you are found operating illegally after the Certificate has been issued. Your business location will be checked by Planning, Building, and, if necessary, Fire Department officials. If you have any doubt whether your business location and/or building may conform with the requirements of the Municipal Code administered by these departments, you are urged to contact these departments for further information before filing your application. **** Sales or use tax may apply to your business activities.** You may seek written advice regarding the application of tax to your particular business by writing or visiting the nearest State Board of Equalization. **** I declare under penalty of perjury that, to the best of my knowledge and belief, the statements made herein are correct and true and that acceptance of payment does not constitute approval of the Business License. Authorization to conduct business is not granted until issuance of the license.**

Authorized
Signature _____ Title _____ Date _____

FOR CITY OFFICE USE ONLY

Planning Approval _____	Date Approved _____	CUP Required? _____	CUP # _____
Building Approval _____	Date Approved _____	Comments _____	
Fire Department Approval _____	Date Approved _____		

Request for Taxpayer Identification Number and Certification

Give Form to the
requester. Do not
send to the IRS.

Print or type
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification; check only one of the following seven boxes: <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____ Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner. <input type="checkbox"/> Other (see instructions) ▶ _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <i>(Applies to accounts maintained outside the U.S.)</i>
5 Address (number, street, and apt. or suite no.)	Requester's name and address (optional)
6 City, state, and ZIP code	
7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number									
				-				-	
or									
Employer identification number									
				-					

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here	Signature of U.S. person ▶	Date ▶
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.ssa.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor ²
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee ¹ The actual owner ¹
5. Sole proprietorship or disregarded entity owned by an individual	The owner ³
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴
For this type of account:	Give name and EIN of:
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity ⁴
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

***Note.** Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.ftc.gov/idtheft or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

SECTION “G”

APPENDIX “A”

**PROJECT LOCATIONS
AND MAP**

PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT #21-03

Name	From	To	L	W	Area	PCI	PARKWAY CONCRETE REPAIR	2" OVERLAY TONS	HEADER CUT (SF)	Digouts (TON)	SLURRY TYPE 2 (ELT)
MPAH (Arterials/Collectors)											
Placentia Ave	Wilson St	City Yard	1,000	60	60,000	71					X
Placentia Ave	City Yard	Estancia N	1,220	60	73,200	72					X
Placentia Ave	Estancia N	Fairview Park	1,460	60	87,600	63					X
Placentia Ave	Fairview Park	Fairview Channel	1,510	60	90,600	73					X
Placentia Ave	Fairview Channel	Tern Cir	1,091	60	65,460	76					X
Placentia Ave	Tern Cir	Adams Ave	790	60	47,400	77	X				X
Placentia Ave	Production Pl (s/o 16th St)	17th St	1,660	60	98,000	83					X
Placentia Ave	17th St	18th St	1,320	60	76,800	83	X				X
Street Rehabilitation Locations (Locals):											
California St	New Hampshire Dr (S'Iy BCR)	Nevada Ave	640	40	25,600	94		X	X		
California St	Minnesota Ave	Iowa St (N'Iy BCR)	1,140	60	68,400	100				X	
Colorado Ln	Cul-de-sac	Iowa St	695	37	27,889	86	X	X	X		
Colorado Pl	Cul-de-sac	California St	500	37	20,674	80		X	X		
Dakota Ave	Gisler Ave	California St	900	37	33,300	74	X	X	X		
Dakota Ave	California St	Iowa St	730	37	27,010	63	X	X	X		
Illinois St	Indiana Ave	Washington Ave	387	37	14,569	78	X	X	X		
Indiana Ave	Illinois St	Iowa St	747	37	27,889	77	X	X	X		
Iowa St	Arizona Ln	Colorado Ln	1,400	37	51,800	75	X	X	X		
Iowa St	Colorado Ln	Gisler Ave (East end)	2,730	37	101,010	75	X	X	X		
Iowa St	Gisler Ave (West end)	California St	2,180	37	80,660	77	X	X	X		
Iowa St	California St	Arizona Ln	340	37	12,580	91	X	X	X		
Kentucky Pl	Indiana Ave	Cul-de-sac	163	37	8,205	82	X	X	X		
Maryland Cir	New Hampshire Dr	Cul-de-sac	500	37	20,674	72	X	X	X		
Michigan Ave	Cul-de-sac	Iowa St	1,300	37	50,274	79	X	X	X	X	
Minnesota Ave	Gisler Ave	California St	734	37	27,158	70		X	X		
Minnesota Ave	California St	Iowa St	790	37	29,230	82	X	X	X		
Nevada Ave	California St	New Hampshire Dr	1,165	37	43,105	76	X	X	X		
Rhode Island Cir	New Hampshire Dr	Cul-de-sac	121	37	6,651	63		X	X		
Texas Cir	Cul-de-sac	California St	197	33	8,675	79	X	X	X		
Vermont Ave	Gisler Ave	New Jersey St	330	37	12,210	90	X	X	X		
Washington Ave	Gisler Ave	California St	1,450	37	53,650	81	X	X	X		
Wyoming Cir	New Hampshire Dr	Cul-de-sac	463	37	19,305	68	X	X	X		
Slurry Seal Locations (Locals):											
Alabama Cir	Cul-de-sac	Cul-de-sac	660	37	28,768	92	X				X
Alaska Ave	Alabama Cir	California St	437	37	16,169	90	X				X
Arizona Ln	Cul-de-sac	Iowa St	364	37	15,642	90					X
Delaware Pl	New Jersey St	Cul-de-sac	205	37	9,759	85	X				X
Florida Cir	Cul-de-sac	Alaska Ave	275	37	12,349	86	X			X	X
Georgia Pl	Cul-de-sac	Iowa St	152	37	7,798	91	X				X
Hawaii Cir	California St	Cul-de-sac	327	37	14,273	81	X				X
Idaho Ln	Cul-de-sac	Missouri St	365	37	15,679	81				X	X
Idaho Pl	Cul-de-sac	California St	602	37	24,448	89	X				X
Missouri St	Minnesota Ave	Dakota Ave	796	37	29,452	92	X				X
Montana Ave	Cul-de-sac	California St	750	37	29,924	89	X			X	X
Nebraska Ln	Cul-de-sac	Missouri St	380	37	16,234	93	X				X
Nebraska Pl	Cul-de-sac	California St	629	37	25,447	78	X				X
New Hampshire Dr	California St	Iowa St	2,370	37	87,690	80	X				X
New Jersey St	New York Ave	Delaware Pl	494	37	18,278	86					X
New Mexico St	Washington Ave	Montana Ave	480	37	17,760	82	X				X
New York Ave	Cul-de-sac	Iowa St	955	37	37,510	86	X				X
Ohio Pl	Indiana Ave	Cul-de-sac	151	37	8,337	87	X			X	X
Oregon Ave	Cul-de-sac	California St	1,060	37	41,394	92	X				X

CITYWIDE PARKWAY MAINTENANCE PROJECT #21-03 (ZONES 17)

		R/R "C-4" CURB (2' AC SLOT) L.F.	R/R "C-8" CURB (2' AC SLOT) L.F.	R/R TYPE "A" CURB L.F.	R/R 4" PCC/4" CMB SIDEWALK S.F.	R/R 6" PCC /NATIVE SIDEWALK S.F.	R/R 6" PCC / 6" CMB DRIVEWAY APPROACH S.F.	R/R ASPHALT CONCRETE TON	INSTALL V GUTTER L.F.	R/R 8" PCC / 8" CMB SPANDREL X-GUTTER (3' AC SLOT) S.F.	INSTALL TRUNCATED DOMES EACH	INSTALL ADA RAMPS EACH	PRUNE TREES INSTALL ROOT BARRIER L.F.	PAINT CURB RED L.F.	DATE COMPLETED	NOTES
Alabama Cir	3313	56.3														
	3333 to 3337	54.0			58.5											one curb drain
	3353 to 3361	60.0			36.0		94.0									
	3352	21.0														
	3344	12.0			238.0					263.0	1.0					263 sf Slotted x-gutter. - survey. R/R Ramp
	3328 to 3332	149.0			345.0											one curb drain
Alaska Ave	1812 to 1816				135											
	1819				255.0					559.0	1.0					263 sf slotted x-gutter - survey. R/R Ramp
Colorado Ln	3272	9.5														
	3268	31.5														Drive approach
	3264	20.0														
	3248	11.0														
	3249	7.0														
	3265	9.0														
	3277	7.5														
	3281	30.5														
Dakota Ave. (Bolder Ave - California St)	3220-3216		9.0													1 curb drain
	3216		15.5													
	3214		27.0													
	3210		17.5													
	3206		10.5													
	3201		24.0													
	3205		31.5		88.0								16.0			Large Tree
	3225				93.6											
Dakota Ave. (California St - Iowa St)	3249	11														
	3257	21.0														
	3265	14.0														
	3264	20.5											16.0			tree lift
	3260	21.0											16.0			tree lift
	3256				40.0											
	3240	10.5														1/2 d/w depression
Delaware	185 (new jersey)				74.80								16.0			tree uplift. Not sure of drainage - no catch basin
Florida Cir	3327				483						1.0					R/R Ramp
	3308 to 3302	44.5			190.0											
	3315	15.5			74.3											one curb drain
	3303	38.0			327.3		165.0									Top X - Top X. R/R Driveway
Georgia	Georgia at Iowa				156					276	1.0					ADA ramp. Spandrel
	Georgia at Iowa				156.0					276.0	1.0					ADA ramp. Spandrel
	3292	13.5														one curb drain
	3290	8.9											16.0			Tree
	3287	21.2														curb at driveway

CITYWIDE PARKWAY MAINTENANCE PROJECT #21-03 (ZONES 17)

		R/R "C-4" CURB (2' AC SLOT) L.F.	R/R "C-8" CURB (2' AC SLOT) L.F.	R/R TYPE "A" CURB L.F.	R/R 4" PCC/4' CMB SIDEWALK S.F.	R/R 6" PCC/NATIVE SIDEWALK S.F.	R/R 6" PCC/6' CMB DRIVEWAY APPROACH S.F.	R/R ASPHALT CONCRETE TON	INSTALL V GUTTER L.F.	R/R 8" PCC/8' CMB SPANDREL X-GUTTER (3' AC SLOT) S.F.	INSTALL TRUNCATED DOMES EACH	INSTALL ADA RAMPS EACH	PRUNE TREES INSTALL ROOT BARRIER L.F.	PAINT CURB RED L.F.	DATE COMPLETED	NOTES
Hawaii Ctr	1798				36		135									W=11.5
	1794				12		157									W=15.5
	1792	40														one curb drain
	1788	22														
	1789	36														
Illinois	1845	9.0														
Indiana	1856 (ohio side)	24.0											16.0			tree uplift
	3248				92.0								16.0			tree uplift
	3240				52.0											w=16.8. on approach
	3241	52.5														
	3253	21.7														
	3265				48.0								16.0			tree uplift
	3281				60.0								16.0			tree uplift
	3290 (iowa side)				270.8					197.0	1.0					ADA ramp. Spandrel
	3290 (iowa side)				270.8					197.0	1.0					ADA ramp. Spandrel
	3290							1.6								AC failure (43 sf)
	3248-3244	45.7														
Iowa St (Galer - California)	1847	12.0														
	3290	23			80.0											eastside - north of New York
		20.0											16.0			tree lift
	3272	8.0														
	3265 (across st)	47.5														
	3232	19.0			144.0											
	3224	15.0														
	3206	16.0											16.0			tree lift
	3209	13.0											16.0			tree lift
	3225	32.0														
	3237				116.0											1/2 DW approach w=8', curb line ok
	3249				48.0								16.0			tree lift
	3287	16.5														
	3291				40.0											
	3297				56.0											
	1852				120.0											
Iowa St (California to Arizona)	1812	33.0											16.0			tree lift
	1800	16.0														DW depression
	1803	17.0											16.0			tree lift
	1807	14.5														
	1811	32.0														DW depression
	1786	19.0														
Iowa St (Arizona to Colorado)	1772	13														
	1760	11.0														DW depression
		7.5														
	1754	9.0														
	1694	48.0														SOUTHSIDE CURB
		10.0											16.0			TREE LIFT
	1725	19.0														DW depression
	1735	13.0														
	1739	11.0														
	1747	14.0														1/2 DW depression
		20.5														1 CURB DRAIN
	1753	56														1 CURB DRAIN
Iowa St (Colorado to Galer Ave)	1660				102								16.0			TREE LIFT
	1658	12.0											16.0			TREE LIFT
	1656				110.0											
	1642															DW depression, 22' R/R Curb height change
																11' R/R Curb height change
	1636	9.0														
	1628	9.5														
	1614	11.5														DW depression
		9.0														
	1618	11.0														SOUTHSIDE OF STREET
	1620	11.5														SOUTHSIDE OF STREET
	1647				167.0											Sidewalk drop below curb
	1651-1653															22' R/R Curb height change

CITYWIDE PARKWAY MAINTENANCE PROJECT #21-03 (ZONES 17)

		R/R "C-4" CURB (2' AC SLOT) L.F.	R/R "C-8" CURB (2' AC SLOT) L.F.	R/R TYPE "A" CURB L.F.	R/R 4" PCC/4' CMB SIDEWALK S.F.	R/R 6" PCC /NATIVE SIDEWALK S.F.	R/R 6" PCC / 6' CMB DRIVEWAY APPROACH S.F.	R/R ASPHALT CONCRETE TON	INSTALL V GUTTER L.F.	R/R 8" PCC / 8' CMB SPANDREL X-GUTTER (3' AC SLOT) S.F.	INSTALL TRUNCATED DOMES EACH	INSTALL ADA RAMPS EACH	PRUNE TREES INSTALL ROOT BARRIER L.F.	PAINT CURB RED L.F.	DATE COMPLETED	NOTES
Idaho PI	3216	19														
	3206	11.0														
	3205	16.0														
	3209	26.0			84.0								16.0			TREE LIFT
	3217	12.0														
	3223	27.5														6' full curb, d/w area, 1 curb drain
	3237	29														
Kentucky	3276	31.8			45.6								16.0			on side Tree uplift. Rv access
	1855				37.2								16.0			tree uplift.
	1855				126.8								16.0			tree uplift. (Side on Indiana)
Maryland Cir	3323				117.0											
	3323-3329		70.0													
	3329															
	3339				69.8											
	3335		44.5		121.5											2 curb drains
	3337		18.0													Drive Approach
	3337-3339				67.5											
	3341															sewer manhole
	3336															water valve Alligator / cracking
Michigan Ave	3223	9.0														Portion of DW approach
	3239	11.5														HALF OF DW APPROACH
	3273	5.5														
	3277	10.5														
	3281	24.5														
Minnesota Ave	Northside	33.0			228.0						1.0					ADA ramp - Minnesota-Missouri
	Southside	33.0			228.0						1.0					ADA ramp - Minnesota-Missouri
	3260				58.0											
	3257	6.5														
	3265				30.0								16.0			tree lift
	3269				36.0								16.0			tree lift
Missouri St	1710	21.0														southside
	1726				94.5								16.0			southside sidewalk - tree lift
		46.0			273.0						1.0					ADA ramp - Nebraska & Missouri corner
					273.0						1.0					ADA ramp - Nebraska & Missouri corner
	1744	20.0														southside curb alignment
	1760	18.5														corner at Missouri & Minnesota
	1754	20.0														
	1748	10.0			72.0								16.0			tree lift
		13.5														1 curb drain
	1740	32.0			132.0								16.0			tree lift
	1726	8.5			154.0								16.0			tree lift
	1722	15.0														1 curb drain
	1714	25.0														
Montana Ave	3226	13.5														driveway depression
	3222	22.0														1 curb drain
	3209	32.0														part D/W depression
	3217	34.0														part D/W depression
	3221	19.0														driveway depression
	3241	22.0														driveway depression
Nebraska PI	3238		4.0													
	3224		14.0													
	3220		17.0													
	3206		9.0													
	3205		9.5													
	3209		10.0													1/2 D/W approach
	3217		11.0													1/2 D/W approach
	3235		22.0													1/2 D/W approach

CITYWIDE PARKWAY MAINTENANCE PROJECT #21-03 (ZONES 17)

		R/R "C-6" CURB (2' AC SLOT)	R/R "C-8" CURB (2' AC SLOT)	R/R TYPE "A" CURB	R/R 4" PCC/4" CMB SIDEWALK	R/R 6" PCC/NATIVE SIDEWALK	R/R 6" PCC/6" CMB DRIVEWAY APPROACH S.F.	R/R ASPHALT CONCRETE TON	INSTALL V GUTTER L.F.	R/R 8" PCC/8" CMB SPANDREL X-GUTTER (3' AC SLOT) S.F.	INSTALL TRUNCATED DOMES EACH	INSTALL ADA RAMPS EACH	PRUNE TREES INSTALL ROOT BARRIER L.F.	PAINT CURB RED L.F.	DATE COMPLETED	NOTES
Nebraska Ln	3268	36.0														
	3260	8.0														
		13.0														
	3256	5.0														
	3257	15.0			44.0											
	3261															
	3265	12.0														1 curb drain
Nevada Ave.	3315	43.0			253.4						1.0					R/R Ramp
	3319	19.0														
	3339				34.3											
	3351-3355															
	3359	20.5														
	3372															flow south on east curb
	3368	26.5			135.0											
	3354				38.3											
	3346	14.5														front of driveway
	3344	14.0														
	3342				63.0											
	3344-3342	58.0														to catch basin
	3342				76.5											
	3338	54.0			31.5											
New Hampshire Dr. (Maryland Section)	1668	10.0			92.3											
	1653															
New Mexico St (Oregon to Montana)	Southside				148.0								16.0			tree lift
	Northside				92.0								16.0			tree lift
New Mexico St (Washington to Oregon)	Northside	12											16.0			tree lift & alignment
	Southside	37.0			92.0											
New York	3216				200								16.0			sidewalk grind
	3206-3202				50											tree uplift
	3213				46								16.0			tree uplift
	3233				74								16.0			tree uplift
	3240				102								16.0			tree uplift
	1876 (new jersey)	24.5														negative flow side
Ohio	1856				265.0					276.0	1.0					ADA ramp - spandrel
	3248 (at Indiana)				265.0					276.0	1.0					ADA ramp - spandrel
Oregon Ave	3210	4.0											16.0			tree lift
	3202				64.0											
	3213	8.0														
	3229	7.5														
	3249	15.0														DW depression
	3265				100.0								16.0			tree lift
	3269				76.0								16.0			tree lift - adjacent to California
	3262	9.0														
	3258	22.0														
	3254	19.0														
Placencia Ave (17th-18th)	1718				140.0								16.0			tree lift. Located on westside
	1746				77.0								16.0			tree lift, south of Shalimar Dr eastside

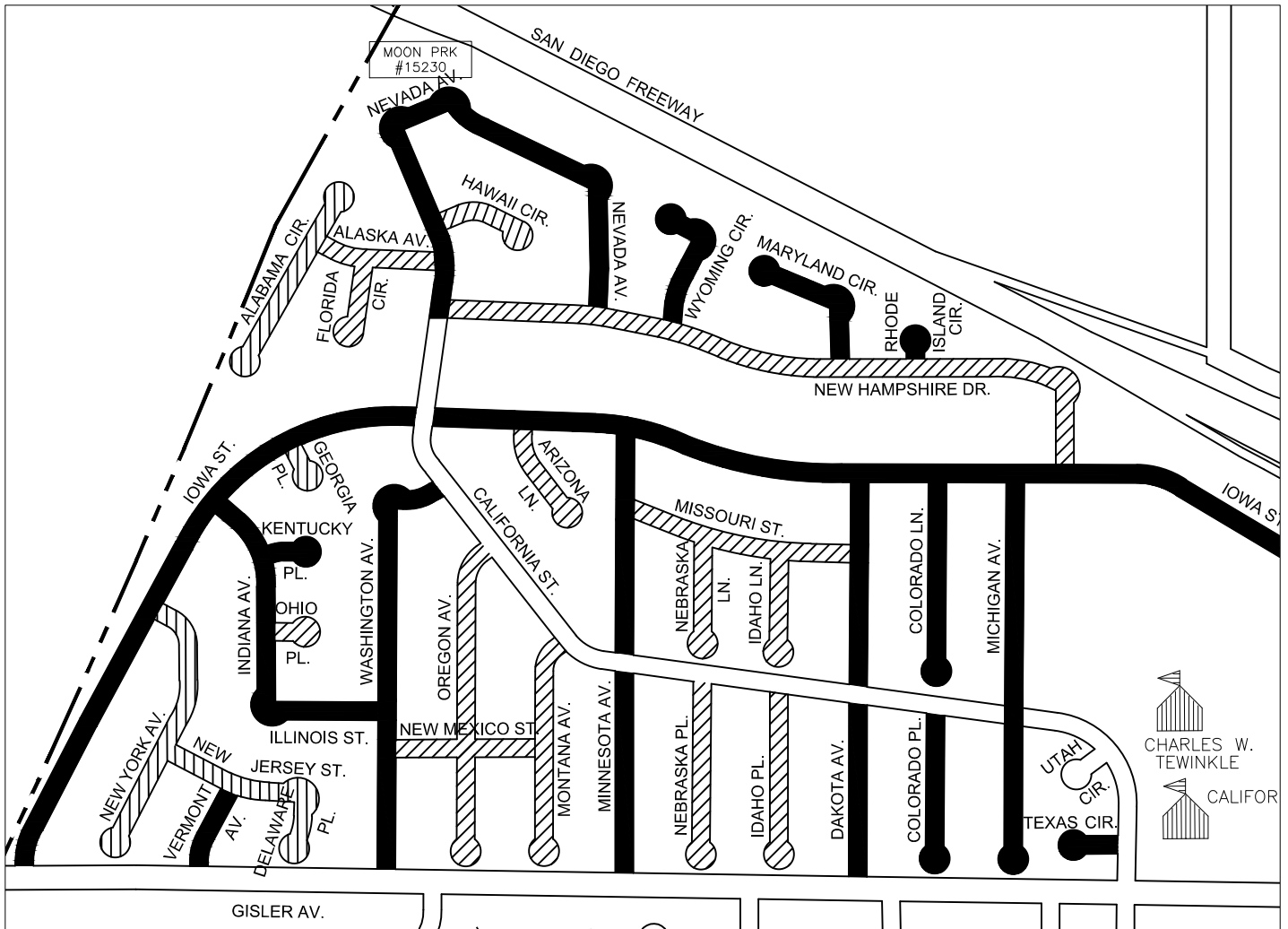
CITYWIDE PARKWAY MAINTENANCE PROJECT #21-03 (ZONES 17)

		R/R "C-4" CURB (2' AC SLOT) L.F.	R/R "C-8" CURB (2' AC SLOT) L.F.	R/R TYPE "A" CURB L.F.	R/R 4" PCC/4" CMB SIDEWALK S.F.	R/R 6" PCC /NATIVE SIDEWALK S.F.	R/R 6" PCC /6" CMB DRIVEWAY APPROACH S.F.	R/R ASPHALT CONCRETE TON	INSTALL V GUTTER L.F.	R/R 8" PCC /8" CMB SPANDREL X-GUTTER (3' AC SLOT) S.F.	INSTALL TRUNCATED DOMES EACH	INSTALL ADA RAMPS EACH	PRUNE TREES INSTALL ROOT BARRIER L.F.	PAINT CURB RED L.F.	DATE COMPLETED	NOTES
Placentia Ave (Tern- Adams)	East side/North of Oriole Dr				106.0								16.0			tree lift
Texas Cir	1658				84.0											sidewalk separated from curb
Vermont Ave	1869 (new jersey)	43.0														On new jersey side
Washington Ave	3222	10.0			48.0								16.0			tree lift
	3217	11.0														
	3265	10.5														
	3269	13.5														
	3273	6.0														
	3289	13.0														
	3270	13.0														DW depression
Wyoming	3327															
	3324-3332	1,867.0														to be surveyed
	3318-3322	90.0														
	3318	20.0			68.0											sewer manhole
	3337															water valve cover
	3335															



CITY OF COSTA MESA

Public Services/Engineering



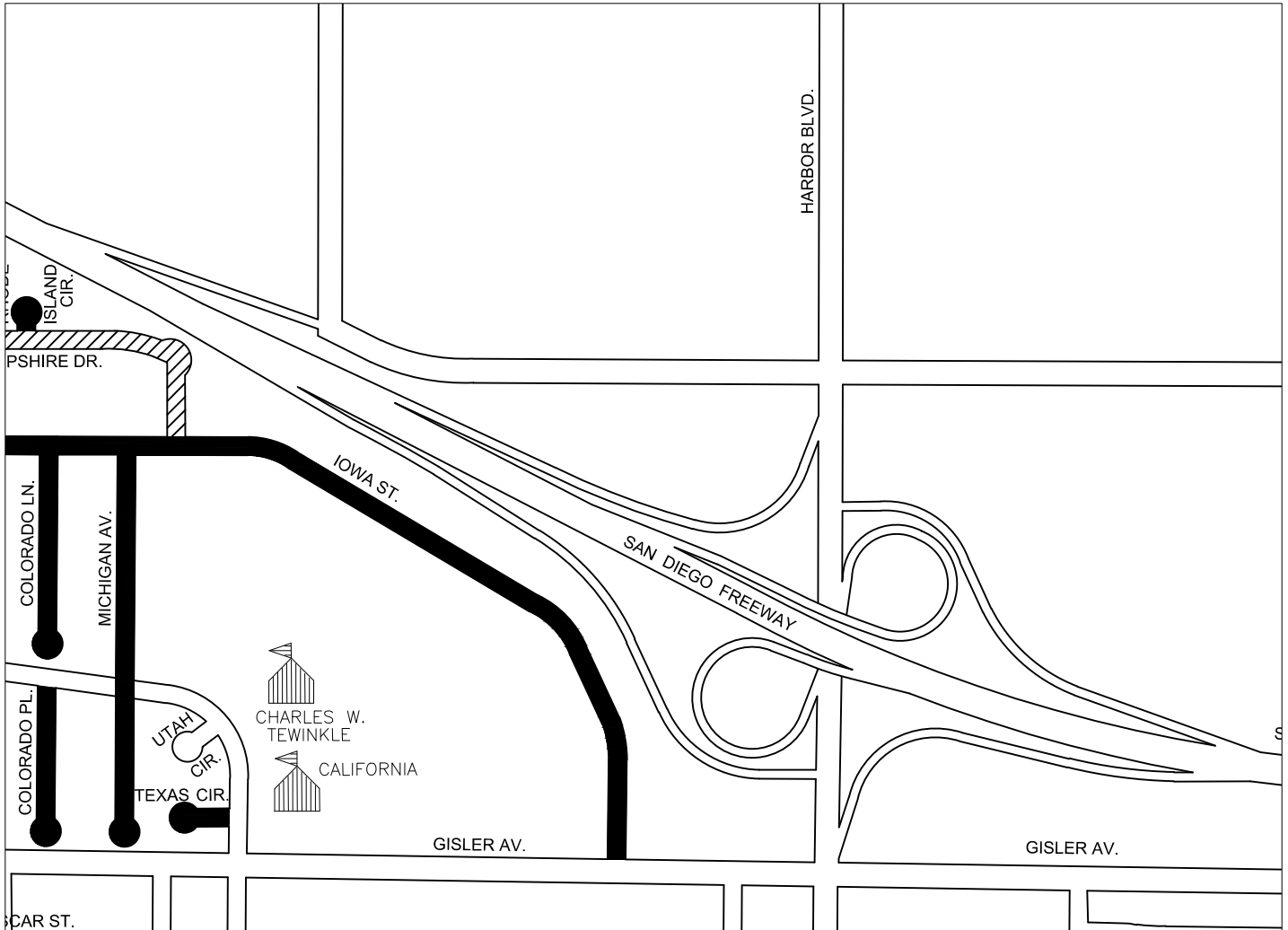
CITYWIDE PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT #21-03

- STREET REHABILITATION AND PARKWAY LOCATIONS
- ▨ SLURRY AND PARKWAY LOCATIONS



CITY OF COSTA MESA

Public Services/Engineering



CITYWIDE PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT #21-03

-  STREET REHABILITATION AND PARKWAY LOCATIONS
-  SLURRY AND PARKWAY LOCATIONS

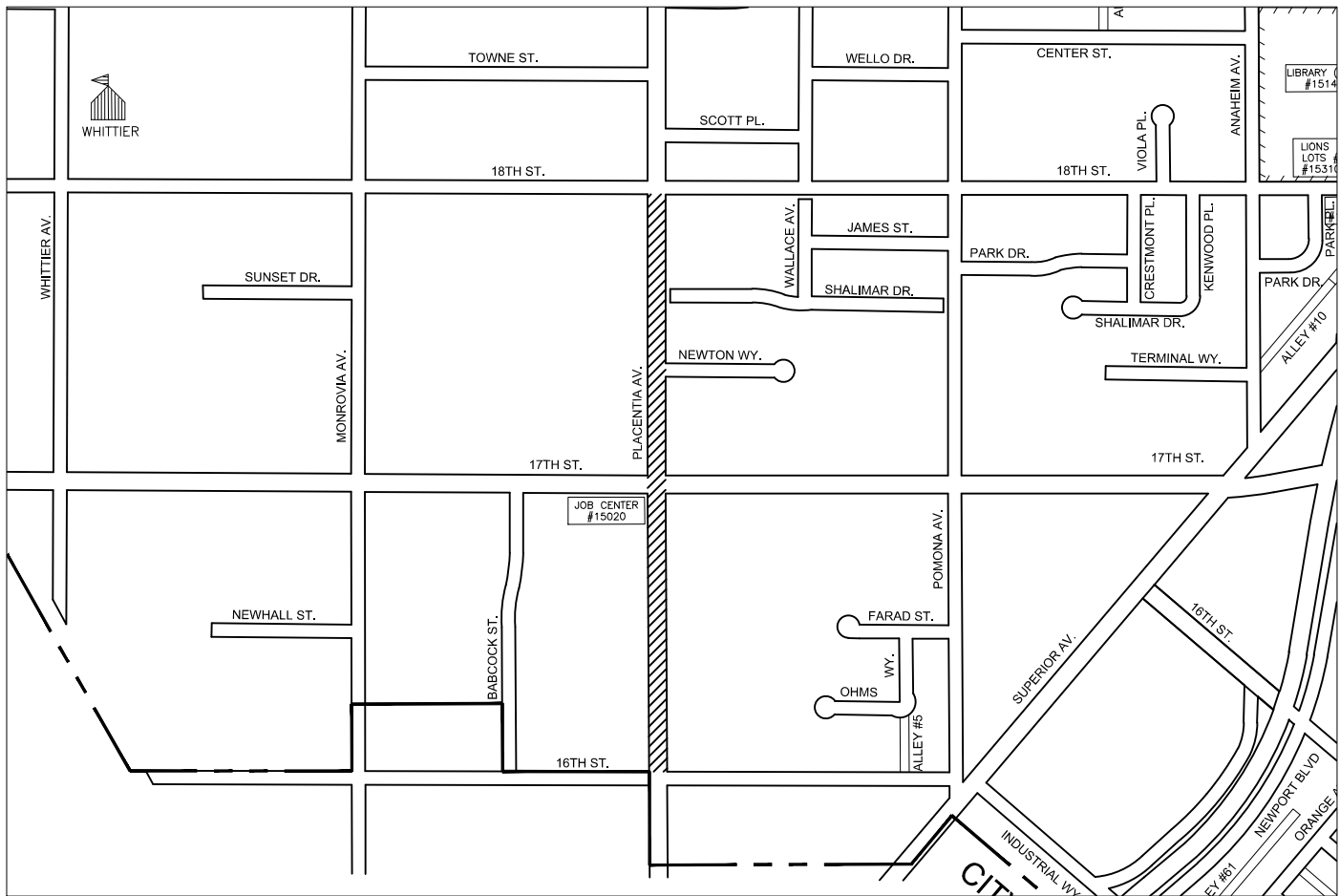


- Page 3 of 4



CITY OF COSTA MESA

Public Services/Engineering



CITYWIDE PARKWAY MAINTENANCE, STREET REHABILITATION, AND SLURRY SEAL PROJECT #21-03

-  STREET REHABILITATION AND PARKWAY LOCATIONS
-  SLURRY AND PARKWAY LOCATIONS

SECTION “G”

APPENDIX “B”

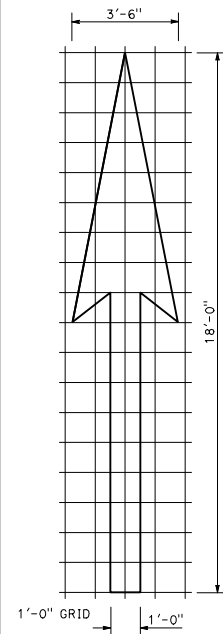
STRIPING PLANS

***[TO BE INCLUDED IN AN UPCOMING
BID ADDENDUM]***

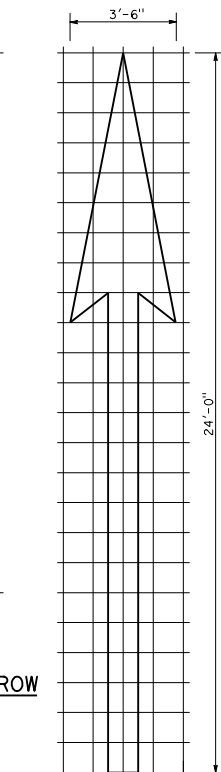
SECTION “G”

APPENDIX “C”

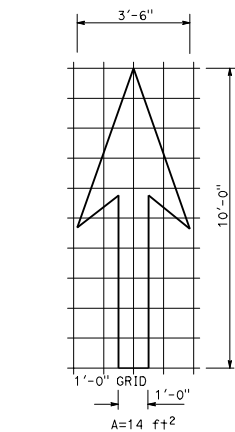
CITY AND CALTRANS STANDARD DRAWINGS



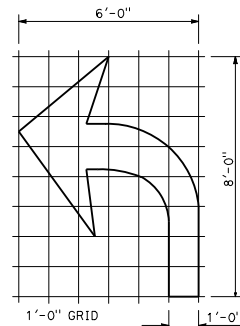
TYPE I 18'-0" ARROW



TYPE I 24'-0" ARROW



TYPE I 10'-0" ARROW

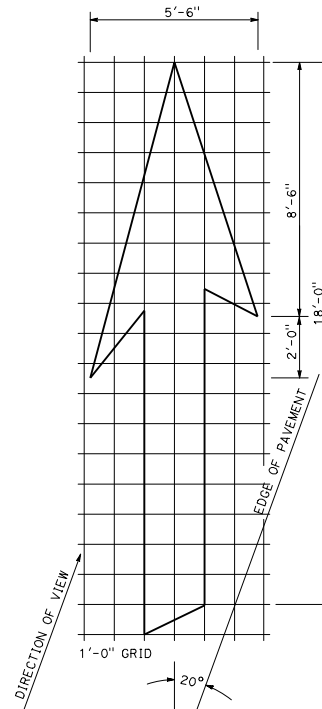


TYPE IV (L) ARROW

(For Type IV (R) arrow,
use mirror image)

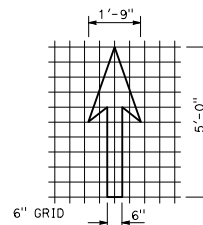
NOTE:

Minor variations in dimensions
may be accepted by the Engineer.

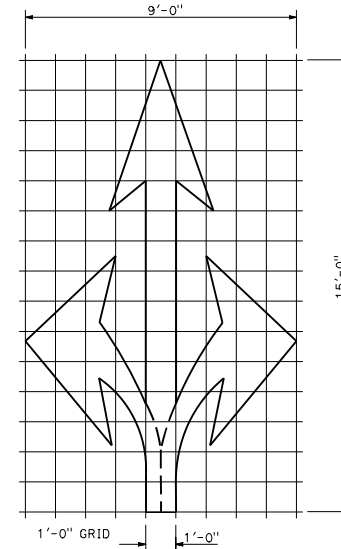


TYPE VI ARROW

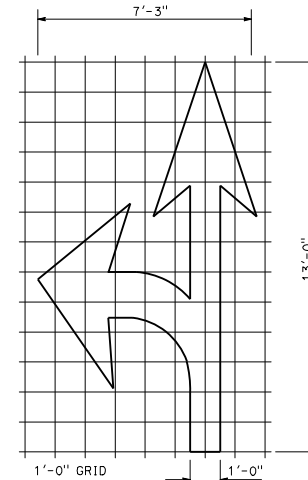
Right lane drop arrow
(For left lane,
use mirror image)



BIKE LANE ARROW



TYPE VIII ARROW

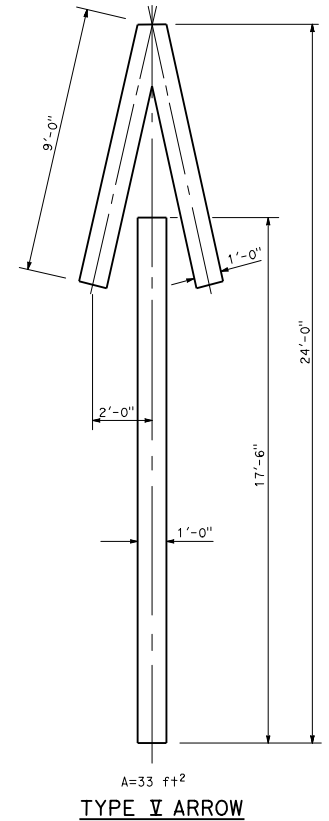


TYPE VII (L) ARROW

(For Type VII (R) arrow,
use mirror image)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS
<p><i>Atifa Ferouzi</i> REGISTERED CIVIL ENGINEER</p> <p>May 31, 2018 PLANS APPROVAL DATE</p> <p>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</p>				

REGISTERED PROFESSIONAL ENGINEER
 No. C80402
 Exp. 3-31-19
 CIVIL
 STATE OF CALIFORNIA

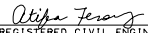



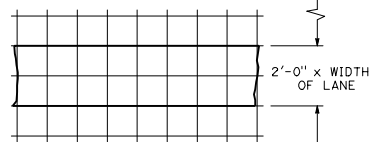
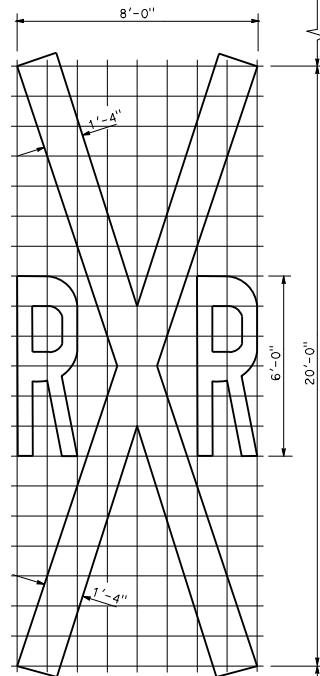
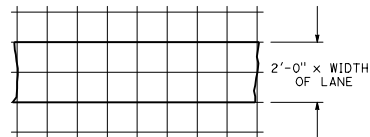
TYPE V ARROW

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**

NO SCALE

A24A

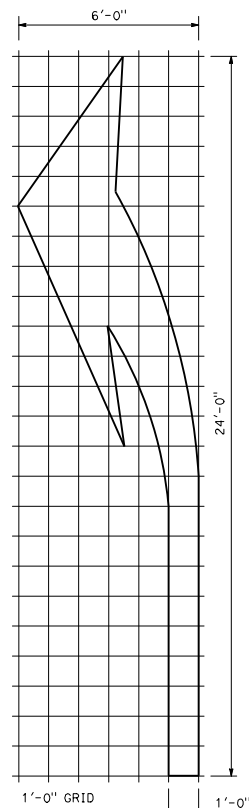
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
 REGISTERED CIVIL ENGINEER					
May 31, 2018					
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



1'-0" GRID
A=70 ft² *

RAILROAD CROSSING SYMBOL

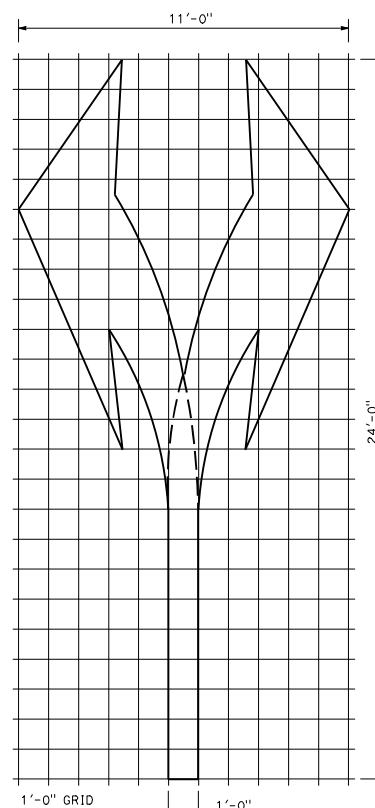
* 70 ft² does not include the 2'-0" x variable width transverse lines.



A=42 ft²

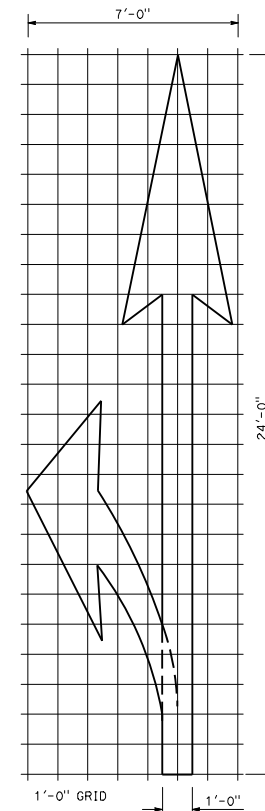
TYPE III (L) ARROW

(For Type III (R) use mirror image)



A=73 ft²

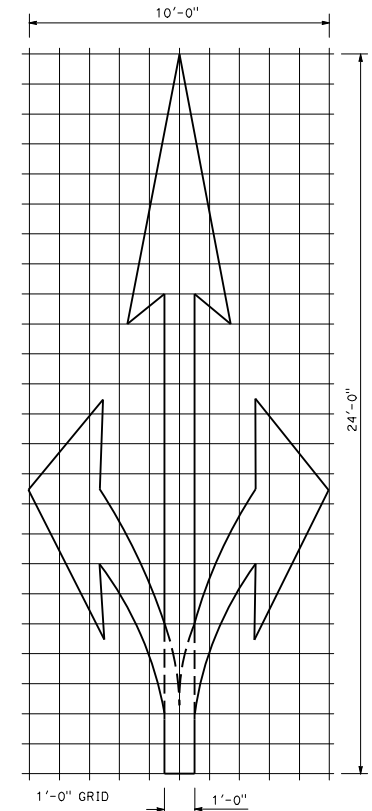
TYPE III (B) ARROW



A=45 ft²

TYPE II (L) ARROW

(For Type II (R) use mirror image)



A=59 ft²

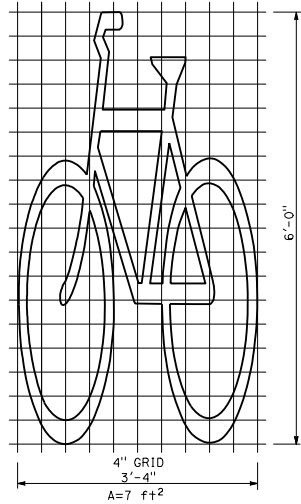
TYPE II (B) ARROW

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

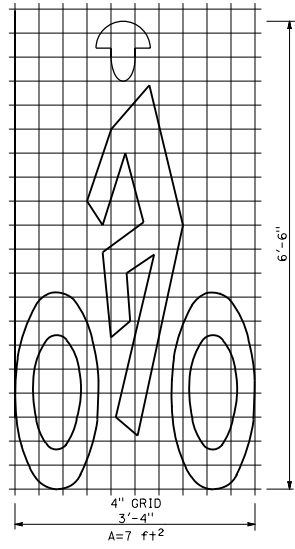
PAVEMENT MARKINGS ARROWS AND SYMBOLS

NO SCALE

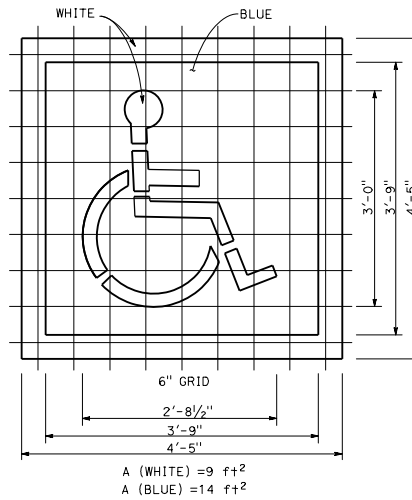
A 24B



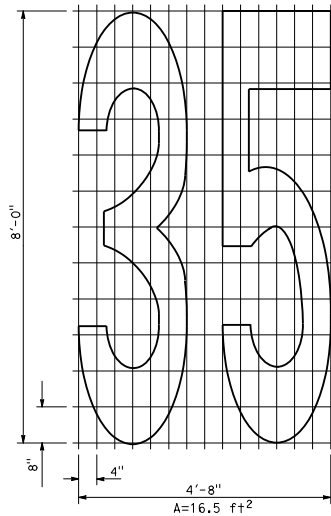
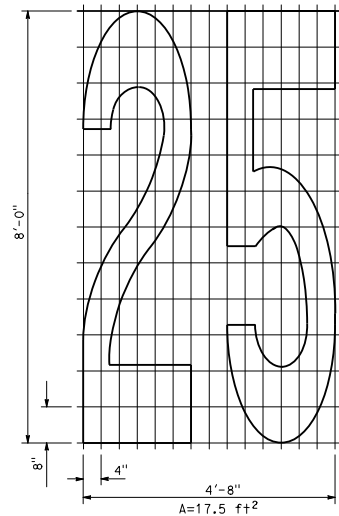
**BIKE LANE SYMBOL
WITHOUT PERSON**



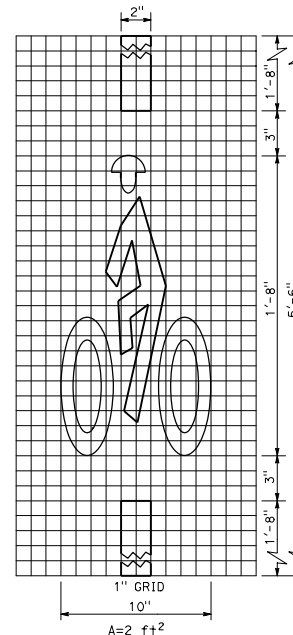
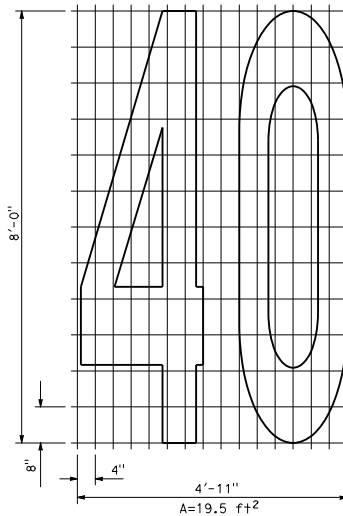
**BIKE LANE SYMBOL
WITH PERSON**



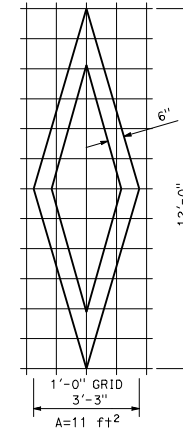
**INTERNATIONAL SYMBOL
OF ACCESSIBILITY (ISA) MARKING**



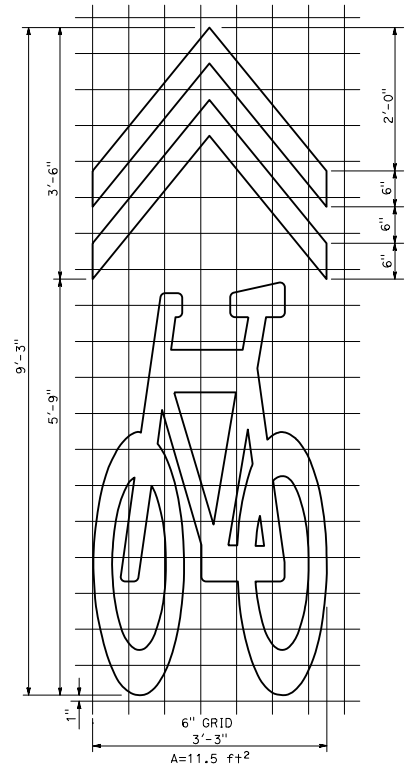
NUMERALS



**BIKE LOOP
DETECTOR SYMBOL**



DIAMOND SYMBOL



SHARED ROADWAY BICYCLE MARKING

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
SYMBOLS AND NUMERALS**

NO SCALE

A24C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

Atifa Jazany
REGISTERED CIVIL ENGINEER

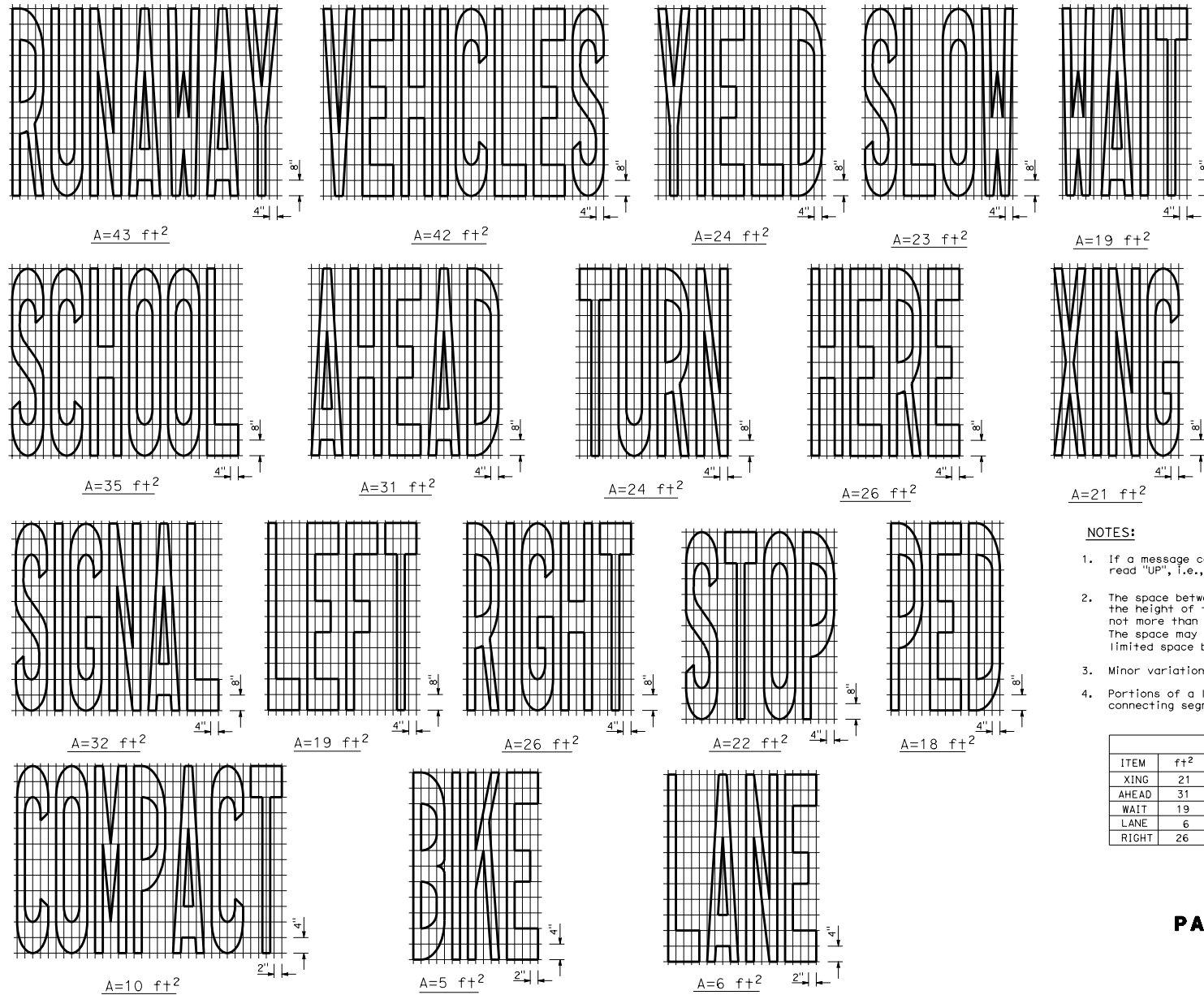
May 31, 2018
PLANS APPROVAL DATE

Atifa Jazany
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

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NOTE:

Minor variations in dimensions may be accepted
by the Engineer.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Atifa Ferouz
 REGISTERED CIVIL ENGINEER
 No. C80402
 Exp. 3-31-19
 CIVIL
 STATE OF CALIFORNIA

May 31, 2018
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
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NOTES:

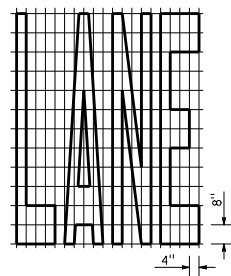
1. If a message consists of more than one word, it must read "UP", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

WORD MARKINGS					
ITEM	f+2	ITEM	f+2	ITEM	f+2
XING	21	YIELD	24	BIKE	5
AHEAD	31	SCHOOL	35	SLOW	23
WAIT	19	SIGNAL	32	STOP	22
LANE	6	TURN	24	LEFT	19
RIGHT	26	HERE	26	VEHICLES	42
				PED	18
				COMPACT	10
				RUNAWAY	43

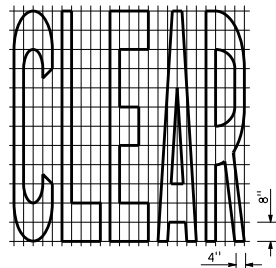
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
 WORDS**

NO SCALE

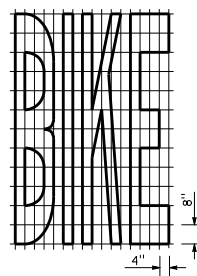
A 24D



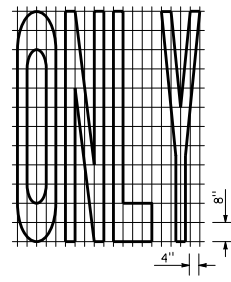
$$A=24 f+2$$



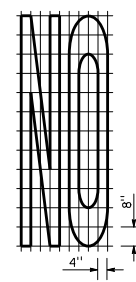
$$A=27 f+2$$



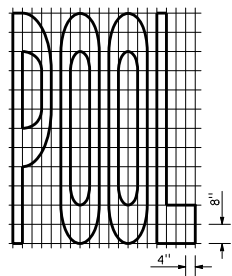
$$A=21 f+2$$



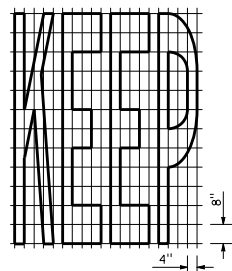
$$A=22 f+2$$



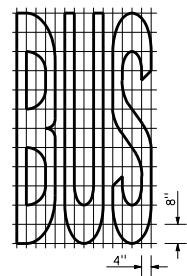
$$A=14 f+2$$



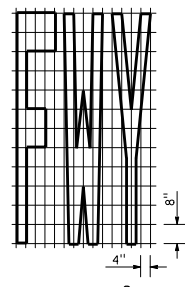
$$A=23 f+2$$



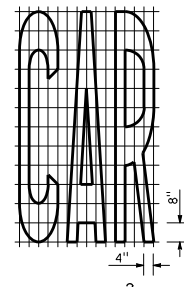
$$A=24 f+2$$



$$A=20 f+2$$



$$A=16 f+2$$

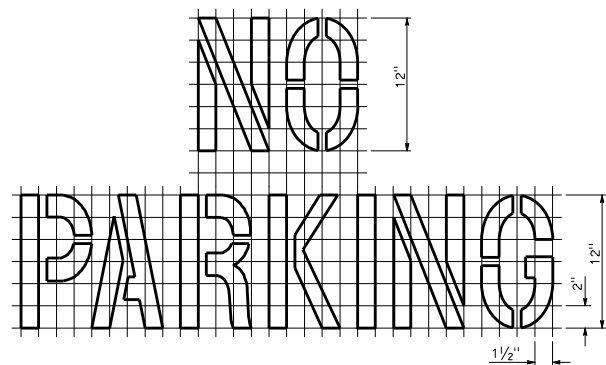


$$A=17 f+2$$

WORD MARKINGS			
ITEM	f+2	ITEM	f+2
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16

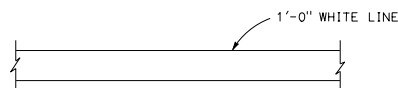
NOTES:

1. If a message consists of more than one word, it must read "UP", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

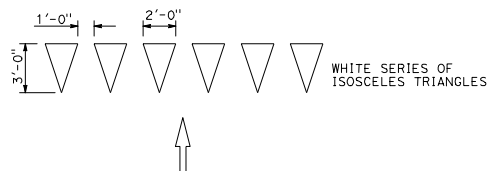


$$A=2 f+2$$

See Notes 6 and 7



LIMIT LINE (STOP LINE)



WHITE SERIES OF ISOSCELES TRIANGLES

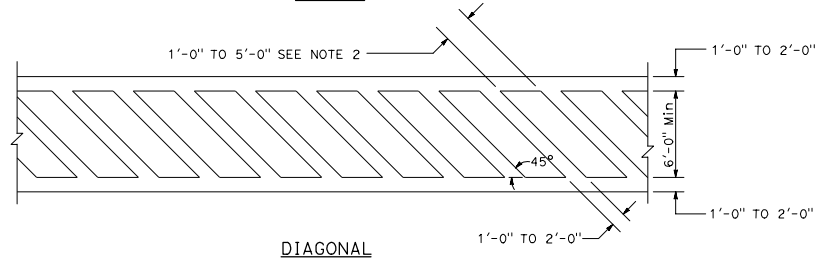
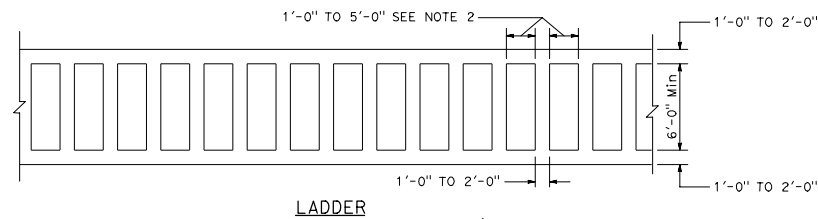
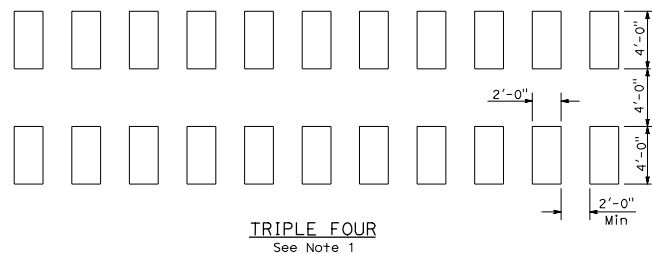
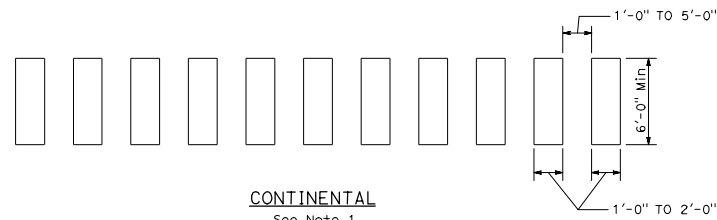
YIELD LINE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS WORDS, LIMIT AND YIELD LINES

NO SCALE

A 24E



HIGHER VISIBILITY CROSSWALKS

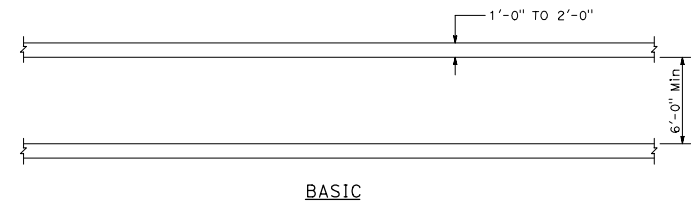
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Atif Feroz
 REGISTERED CIVIL ENGINEER
 May 31, 2018
 PLANS APPROVAL DATE
 No. C80402
 Exp. 3-31-19
 CIVIL
 STATE OF CALIFORNIA

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NOTES:

1. Spaces between markings must be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except those near schools must be yellow.



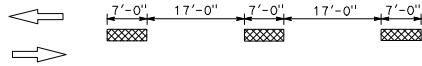
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
 CROSSWALKS**

NO SCALE

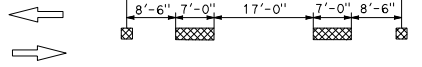
A24F

CENTERLINES (2 LANE HIGHWAYS)

DETAIL 1



DETAIL 2

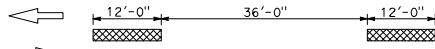
~~DETAIL 3~~

DETAIL 3 DELETED

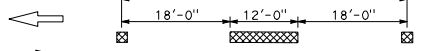
~~DETAIL 4~~

DETAIL 4 DELETED

DETAIL 5



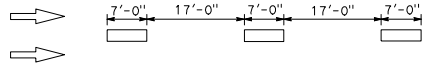
DETAIL 6

~~DETAIL 7~~

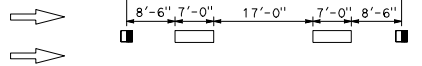
DETAIL 7 DELETED

LANELINES (MULTILANE HIGHWAYS)

DETAIL 8

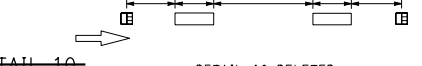


DETAIL 9



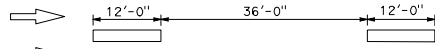
DETAIL 9A

SEE NOTE

~~DETAIL 10~~

DETAIL 10 DELETED

DETAIL 11



LANELINES (Cont)

(MULTILANE HIGHWAYS)

DETAIL 12

DETAIL 12A

SEE NOTE

~~DETAIL 13~~

DETAIL 13 DELETED

~~DETAIL 14~~

DETAIL 14 DELETED

~~DETAIL 14A~~

DETAIL 14A DELETED

NO PASSING ZONES-ONE DIRECTION

DETAIL 15

DETAIL 16

~~DETAIL 17~~

DETAIL 17 DELETED

DETAIL 18

DETAIL 19

~~DETAIL 20~~

DETAIL 20 DELETED

NO PASSING ZONES-TWO DIRECTION

DETAIL 21

DETAIL 22

~~DETAIL 23~~

DETAIL 23 DELETED

LEGEND

MARKERS

- TYPE C RED-CLEAR RETROREFLECTIVE
- TYPE D TWO-WAY YELLOW RETROREFLECTIVE
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE

LINES

- 6" WHITE
- 6" YELLOW

TYPE C AND TYPE D

TYPE G AND TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

A20A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Atifa Ferrouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. C80402
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CIVIL
STATE OF CALIFORNIA

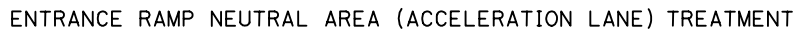
2018 STANDARD PLAN A20A

1-26-18

[Return to Table of Contents](#)

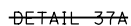


DETAIL 36



MARKERS

- ## MARKER DETAILS



DETAIL 37A DELETED

LANE DROP AT INTERSECTIONS



DETAIL 37C DELETED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS**

NO SCALE

A20C

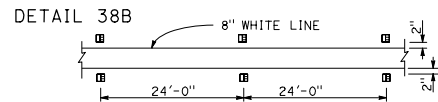
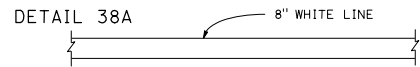
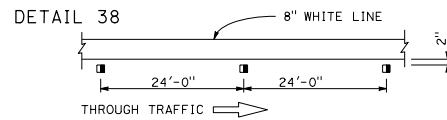
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

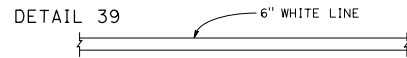
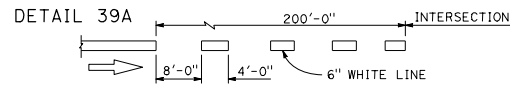
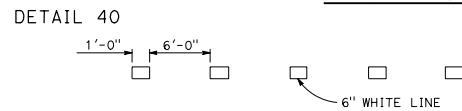
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Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

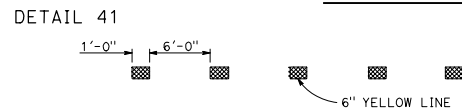
CHANNELIZING LINE

~~DETAIL 38C~~ DETAIL 38C DELETED

BIKE LANE LINE**INTERSECTION LINE
BIKE LANE****LANE LINE EXTENSIONS
THROUGH INTERSECTIONS**

~~DETAIL 40A~~

DETAIL 40A DELETED

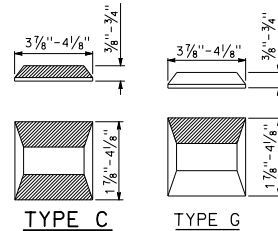
**CENTER LINE EXTENSIONS
THROUGH INTERSECTIONS**

~~DETAIL 41A~~

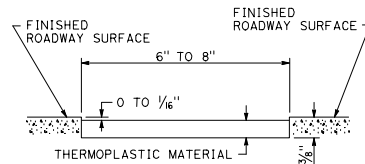
DETAIL 41A DELETED

LEGEND**MARKERS**

TYPE C RED-CLEAR RETROREFLECTIVE
TYPE G ONE-WAY CLEAR RETROREFLECTIVE
6" YELLOW LINE

MARKER DETAILS

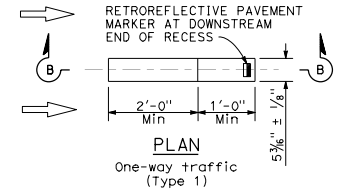
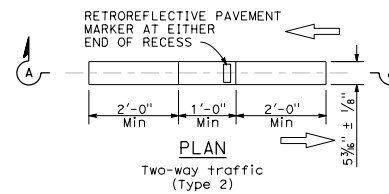
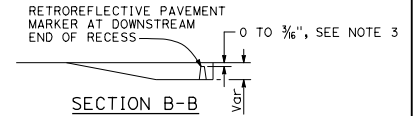
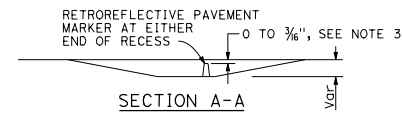
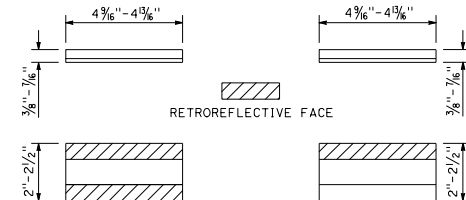
RETROREFLECTIVE FACE

**DETAIL FOR RECESSED
THERMOPLASTIC TRAFFIC STRIPE**

See Notes A and B.

RECESSED THERMOPLASTIC NOTES

- A. See typical traffic line details for pavement marking patterns.
- B. The top of the thermoplastic installed in recessed pavement shall be 0 to 1/16" below the pavement surface.

**RECESS DETAIL FOR
RETROREFLECTIVE PAVEMENT MARKER****RECESSED MARKER NOTES:**

1. See typical traffic line details for marker patterns to be used with recessed pavement markers. Detail 14A requires a Type 2 recess.
2. The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.
3. The top of pavement markers installed in recesses shall be 0 to 3/16" below the pavement surface.

TYPE C AND TYPE D TYPE G AND TYPE H
See Notes 1 and 2.

**RETROREFLECTIVE PAVEMENT MARKER
FOR RECESSED INSTALLATION**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS**

NO SCALE

A20D

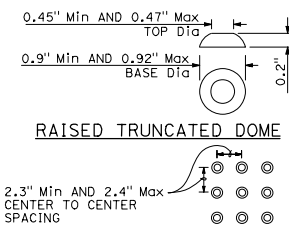
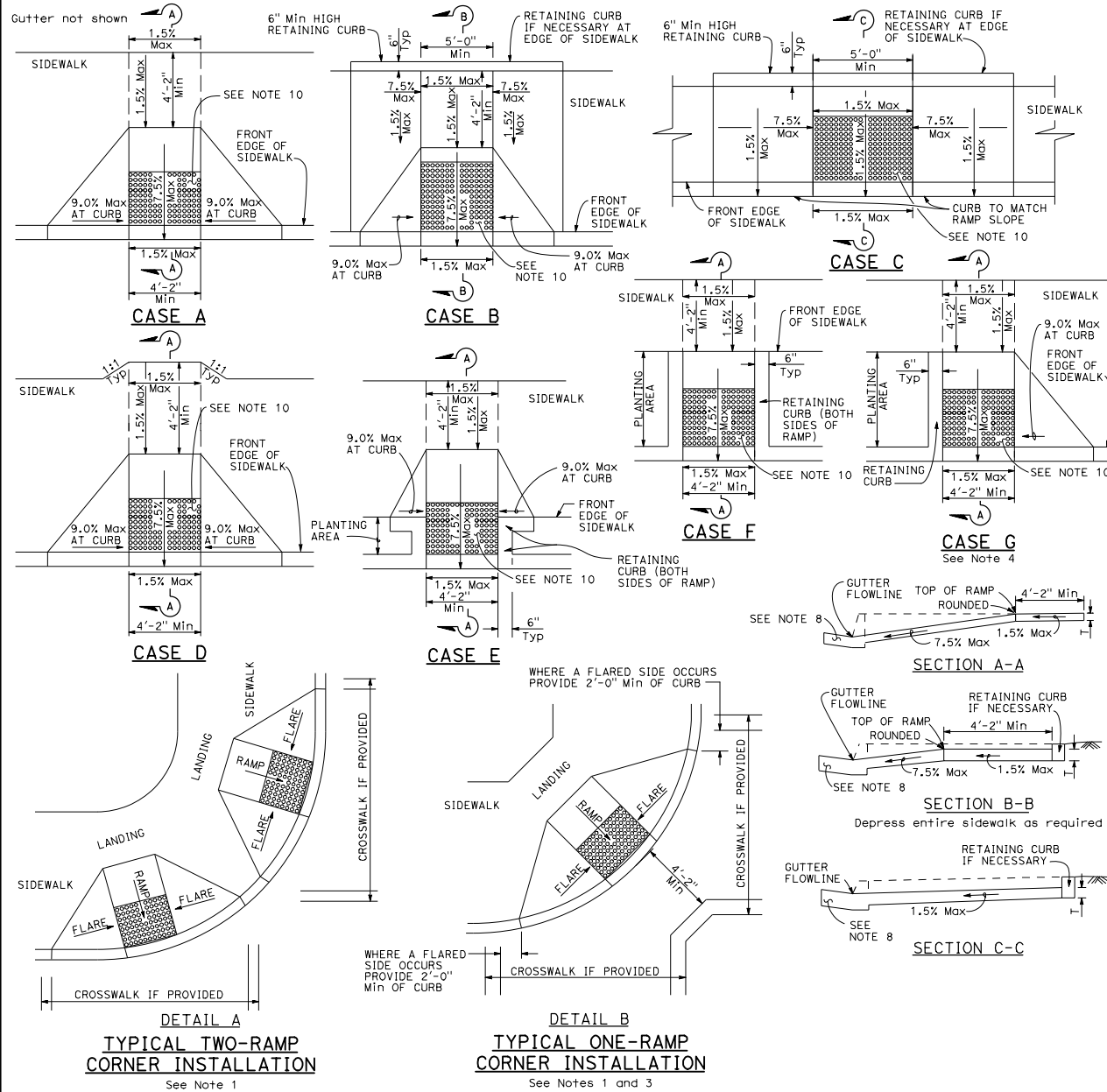
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Atifa Ferouz
REGISTERED CIVIL ENGINEER

May 31, 2018
PLANS APPROVAL DATE

Atifa Ferouz
No. C80402
Exp. 3-31-19
CIVIL
STATE OF CALIFORNIA

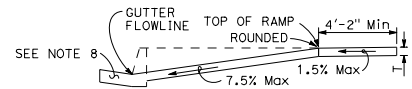
THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF SCANNED
COPIES OF THIS PLAN SHEET.



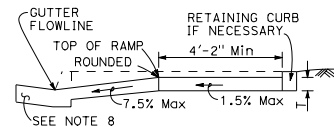
RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE

NOTES: See Note 10

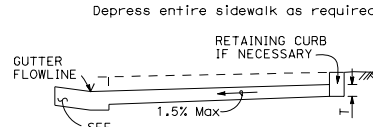
- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Transition gutter pan slope from 1" of depth for each 2'-0" of width to match typical gutter pan slope per Standard Plan A87A.
- The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness, "T", shall be 3 1/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.



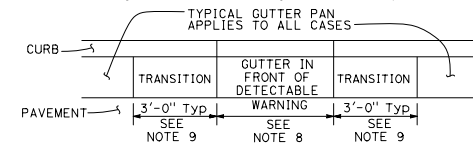
SECTION A-A



SECTION B-B



SECTION C-C



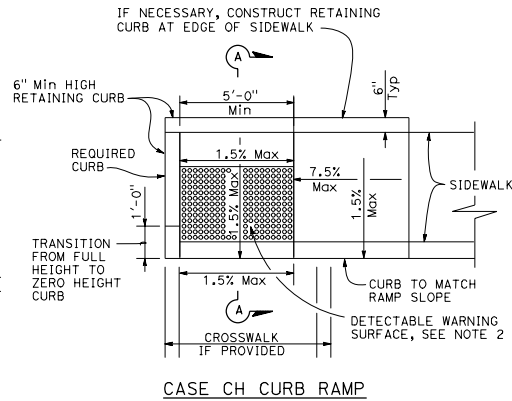
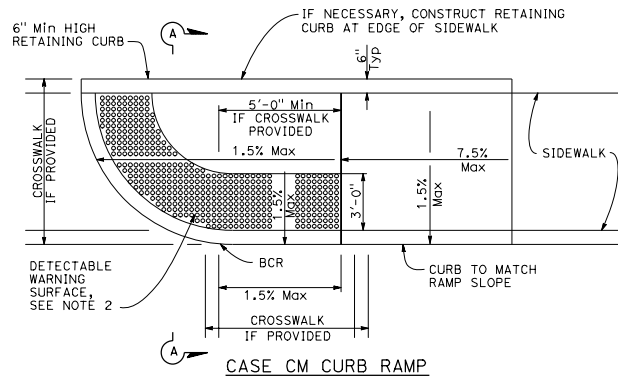
GUTTER PAN TRANSITION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CURB RAMP DETAILS
NO SCALE

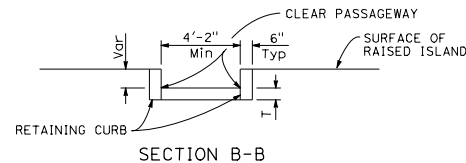
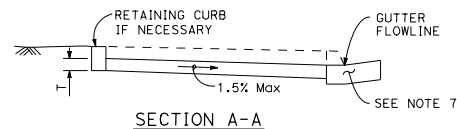
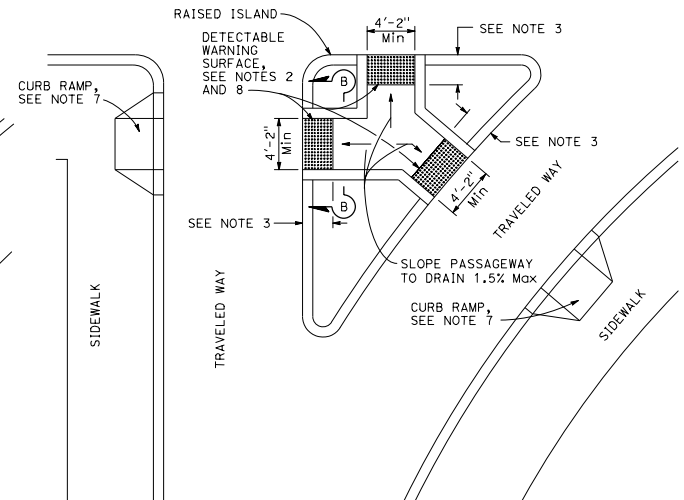
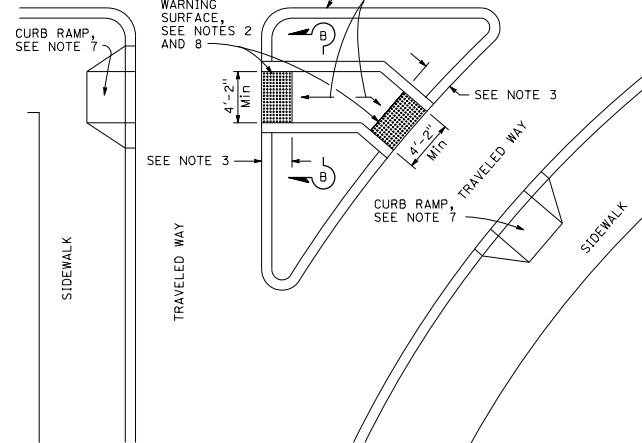
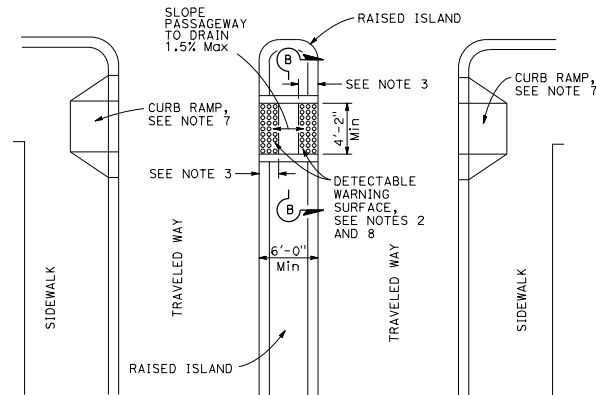
A88A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER May 31, 2018 PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
REBECCA LYNN MOORE No. C54415 Exp. 12-31-19 CIVIL REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA					

Gutter not shown

**NOTES:**

1. Sidewalk, ramp and passageway thickness, "T", shall be 3 1/2" minimum.
2. For details of detectable warning surfaces, see Standard Plan A88A.
3. Where an island passageway length is greater than or equal to 6'-0", but less than 8'-0", each detectable warning surface shall extend the full width and 2'-0" depth of the passageway length. Where an island passageway length is greater than or equal to 8'-0", each detectable warning surface shall extend the full width and 3'-0" depth of the passageway length. Detectable warning surfaces shall extend the full width of the island passageway except a maximum gap of 1 inch is allowed on each side of the passageway.
4. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
5. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
6. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.
7. For additional curb ramp details, see Standard Plan A88A.
8. The detectable warning surface will be a rectangle as shown at the face of curb, unless modified in the Project Plans.

**TYPE C PASSAGEWAY**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**CURB RAMP AND
ISLAND PASSAGEWAY DETAILS**

NO SCALE

A88B

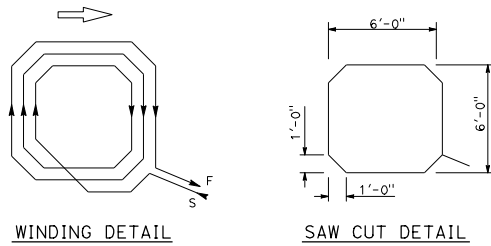
D16+	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

Remedy
REGISTERED CIVIL ENGINEER

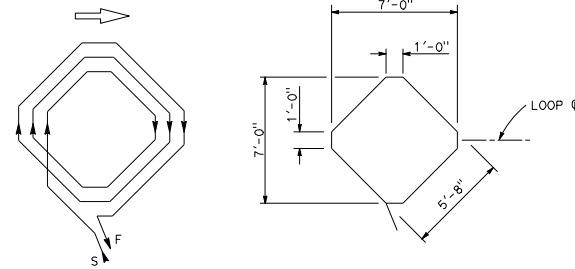
May 31, 2018
PLANS APPROVAL DATE

Rebecca Lynn Maury
No. C54415
Exp. 12-31-19
CIVIL
STATE OF CALIFORNIA

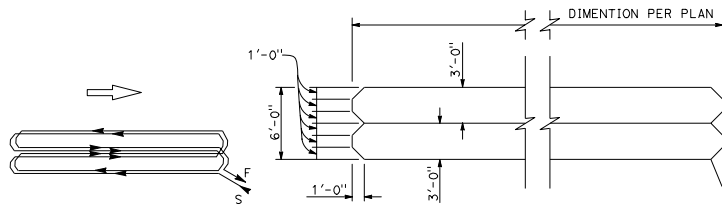
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



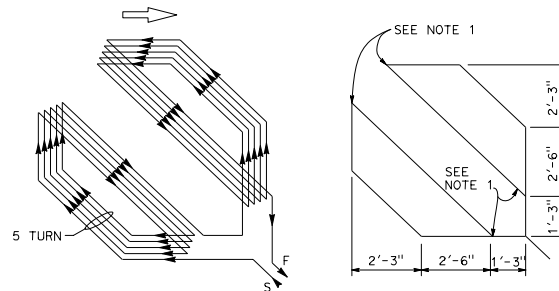
WINDING DETAIL
SAW CUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



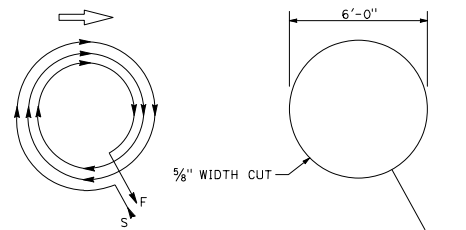
WINDING DETAIL
SAW CUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



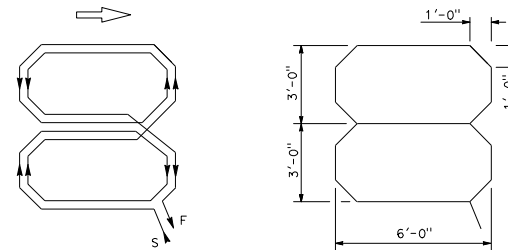
WINDING DETAIL
SAW CUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAW CUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAW CUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION

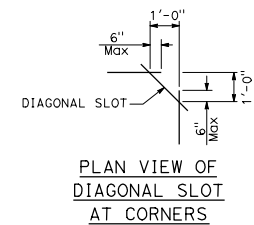


WINDING DETAIL
SAW CUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION

NOTES:

1. Round corners of acute angle saw cuts to prevent damage to conductors.
2. Typical distance separating loops from edge to edge is 10' for Type A, B, D, and E installation in single lane.
3. Use Type D loops for limit line detection and bicycle lanes.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
H.R.F. REGISTERED ELECTRICAL ENGINEER May 31, 2018 PLANS APPROVAL DATE THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.			Hamid Zolfaghari No. E15636 Exp. 12-31-19 REGISTERED PROFESSIONAL ENGINEER ELECTRICAL STATE OF CALIFORNIA		



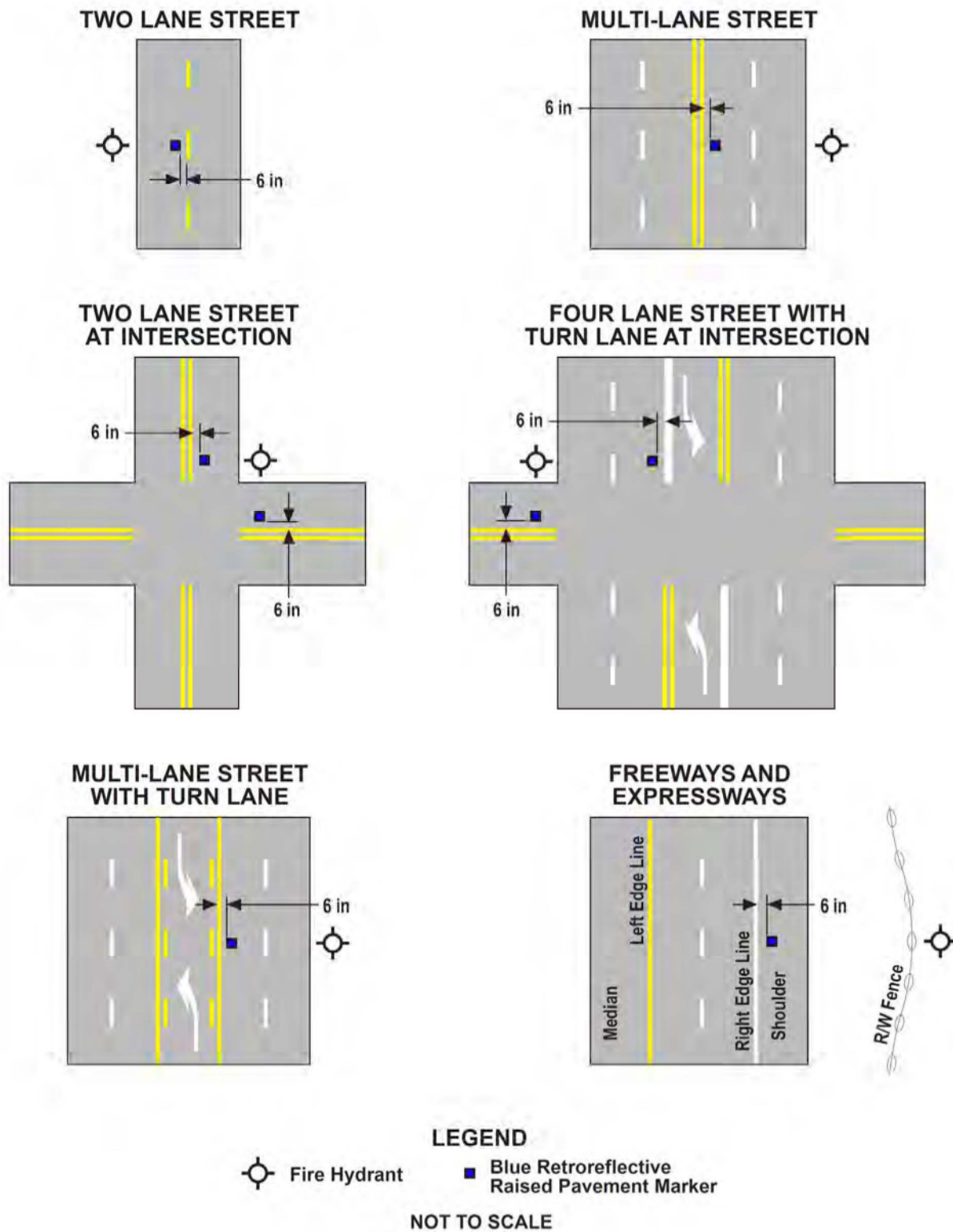
PLAN VIEW OF
DIAGONAL SLOT
AT CORNERS

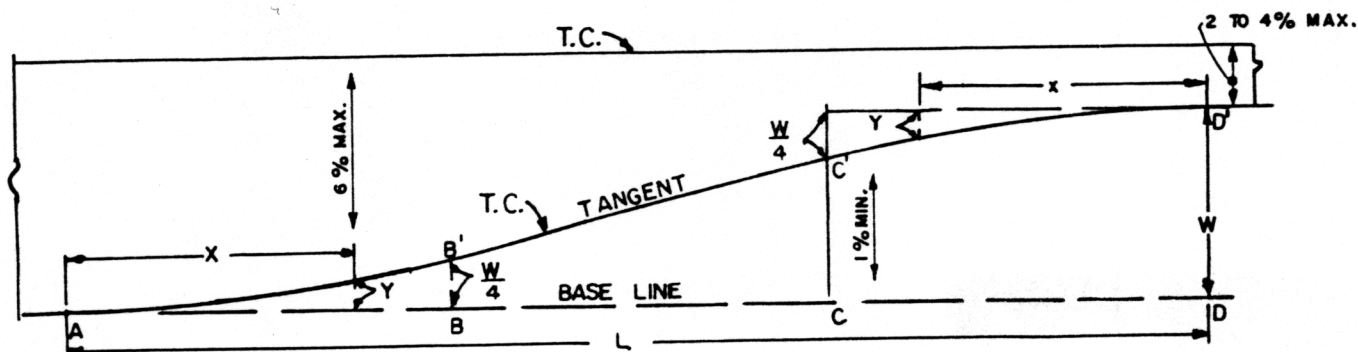
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(DETECTORS)**

NO SCALE

ES-5B

Figure 3B-102 (CA). Examples of Fire Hydrant Location Pavement Markers





W = Width of left turn pocket

L = Length of taper

AB = BC = CD = $\frac{L}{3}$

AB' and CD' are parabolic curves except on curved alignments

X = Distance from point "A" along base line

Y = Offset from base line = $2.25W \frac{X^2}{L^2}$

SINGLE LEFT TURN POCKET

L = 90'

W = 10'

X	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'
Y	0.00'	0.28'	1.11'	2.50'	4.17'	5.83'	7.50'	8.89'	9.72'	10.00'

L = 60' *

W = 10'

X	0'	10'	20'	30'	40'	50'	60'
Y	0.00'	0.62'	2.50'	5.00'	7.50'	9.38'	10.00'

DOUBLE LEFT TURN POCKET

L = 150'

W = 20'

X	0'	10'	20'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
Y	0.00'	0.20'	0.80'	1.80'	3.20'	5.00'	7.00'	9.00'	11.00'	13.00'	15.00'	16.80'	18.20'	19.20'	19.80'	20.00'

NOTE:

In the case when the base line is curved the offsets are calculated by assuming the base line to be a tangent they are then applied to the curved base line. AB' and CD' are no longer parabolic and BC is no longer a tangent.

* Use 60' transition when insufficient distance is available for 90' transition or where approved by the Engineer.

CITY OF COSTA MESA
CALIFORNIA
PUBLIC SERVICES DEPARTMENT

PARABOLIC MEDIAN CURB TRANSITION

APPROVED:

BDMattern
BRUCE D. MATTERN R.C.E. 19388

DATE:

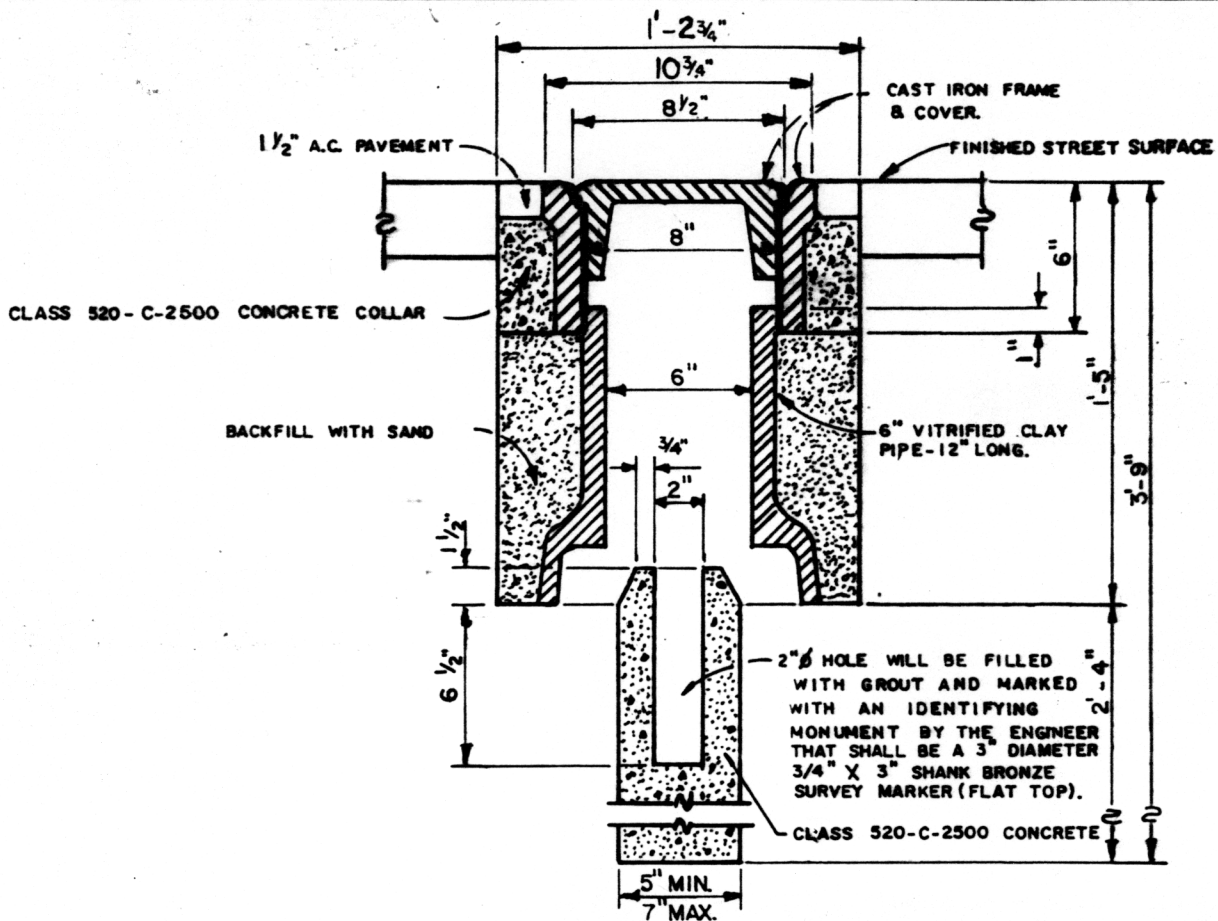
12/13/85

DRAWN: C.P.R.

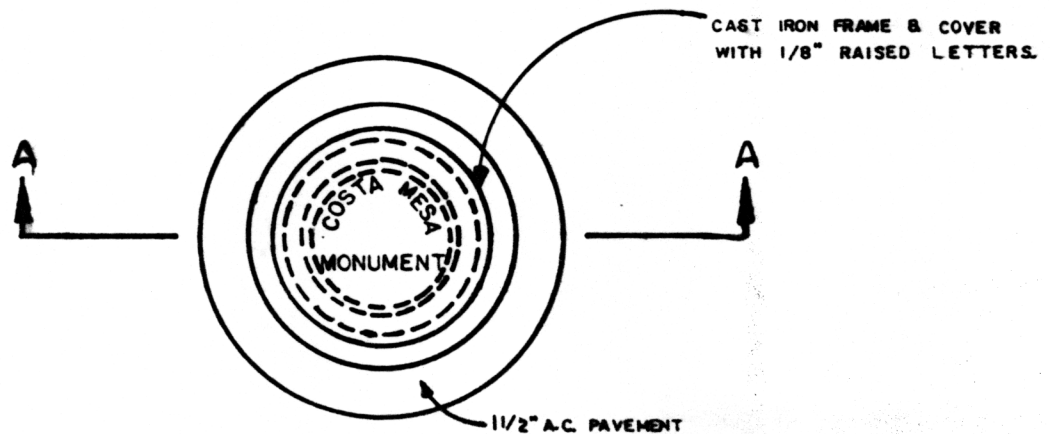
SCALE: NONE

STD. DWG. NO.

116



SECTION A-A



PLAN

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

SURVEY MONUMENT
TYPE "A"

APPROVED

B. D. Mattern
BRUCE D. MATTERN R.C.E. 1938B

DATE

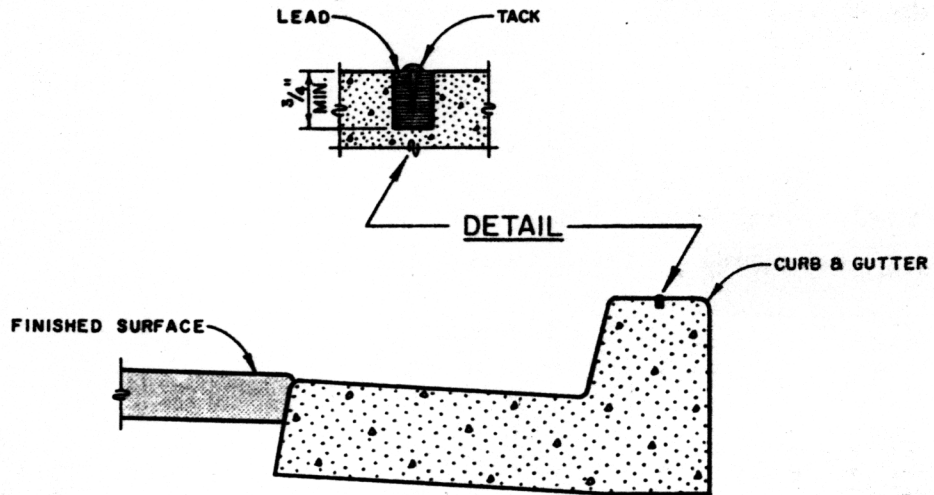
12/13/85

DRAWN C.P.R.

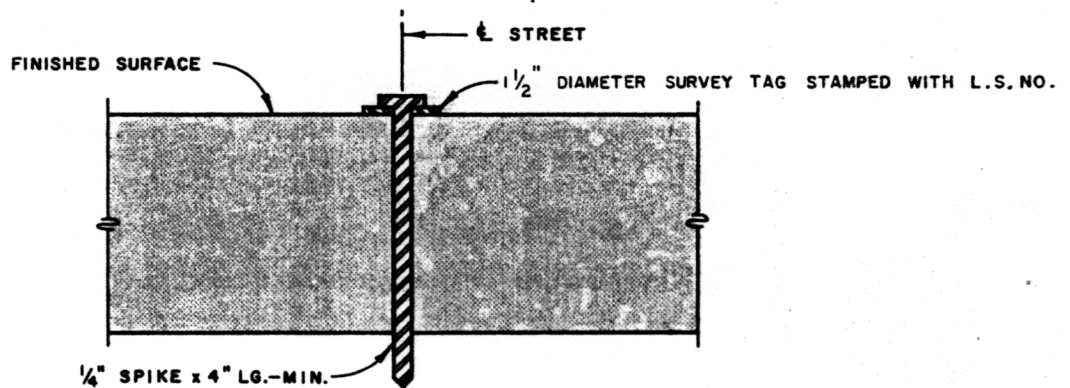
SCALE NONE

STD. DWG. NO.

613



SECTION



SECTION

NOTES:

1. ALL TIE POINTS SHALL BE LEAD & TACK. LEAD SHALL BE A MIN. OF $\frac{3}{4}$ " DEEP AND TACKS SHALL BE MADE OF BRASS.
2. ALL INTERSECTION & CENTER LINE CONTROL POINTS SHALL BE SPIKE & WASHER.
3. ALL CONTROL POINTS SHALL HAVE A MIN. OF 4 TIES, WITH TIES PLACED SUCH THAT A PROPER ANGLE IS OBTAINED FROM THE TIE TO THE CONTROL POINT AS DETERMINED BY THE CITY ENGINEER.
4. RECORD CENTER LINE TIE DATA ON TIE SHEET AVAILABLE AT THE CITY OF COSTA MESA, ENGINEERING DIVISION.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

SURVEY CENTER LINE TIES

APPROVED

BRUCE D. MATTEN R.C.E. 19399

DATE

12/13/05

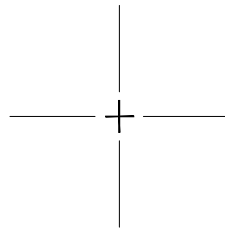
DRAWN Y.A.B.

SCALE NONE

STD. DWG. NO.

615

REV.



MINOR
STREET

$\Delta/2$

10'

8'

Note 2



YIELD

Note 1

MINOR
STREET
(RESIDENTIAL,
COMMERCIAL,
ETC.)

$\Delta/2$

R1-2



NOTES:

- ① WHITE THERMOPLASTIC 'YIELD' LEGEND PER CALTRANS STD. PLAN A24D.
- ② WHITE THERMOPLASTIC 'YIELD' PAVEMENT MARKINGS PER CALTRANS STD. PLAN A24E.

CITY OF COSTA MESA
PUBLIC SERVICES DEPARTMENT

LIMIT LINE & LEGEND - CASE A

TYPICAL INSTALLATION AT MINOR ST. TO MINOR ST.



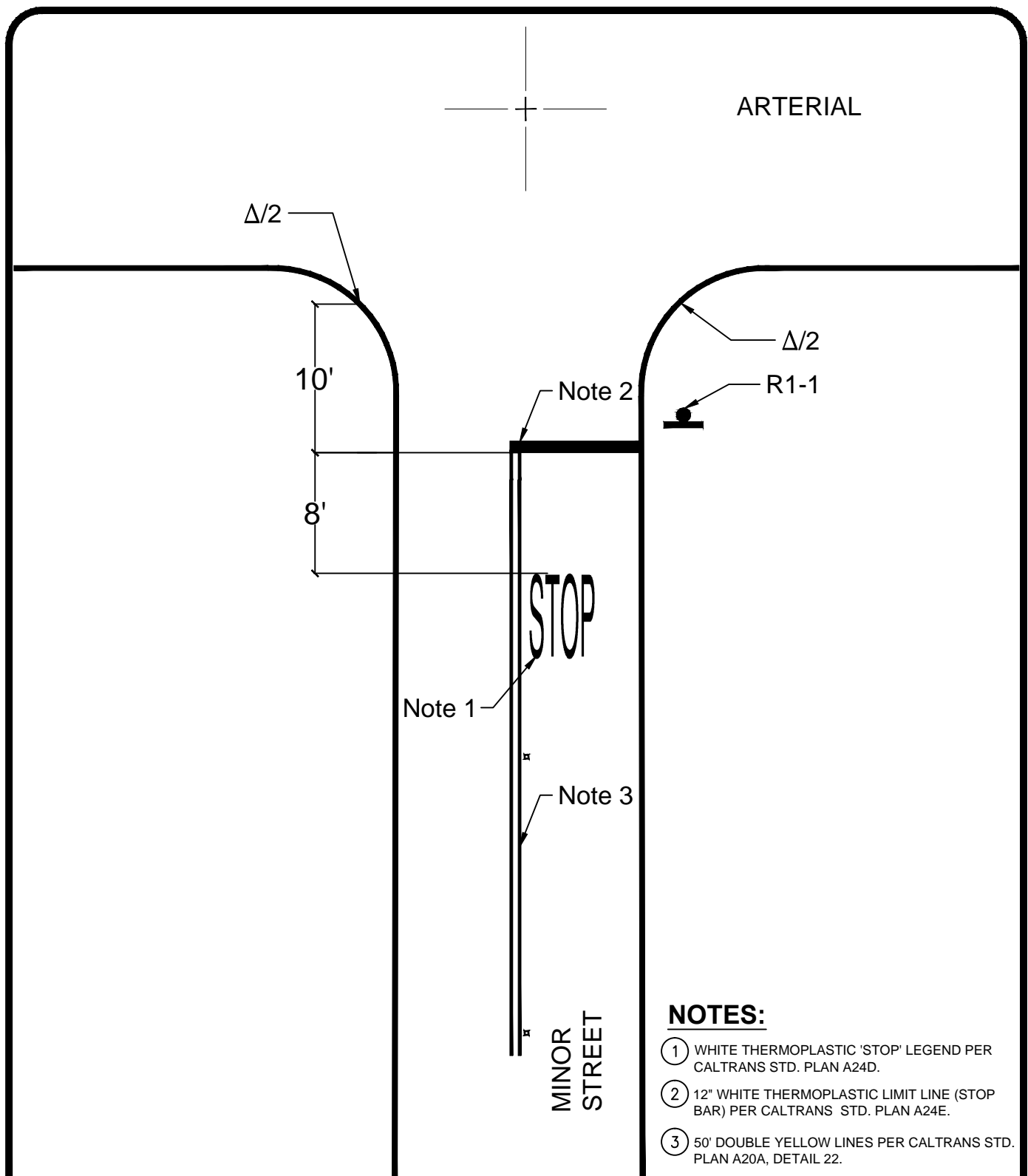
RECOMMENDED

RAJA SETHURAMAN

DATE

STD. DWG. NO.

901A



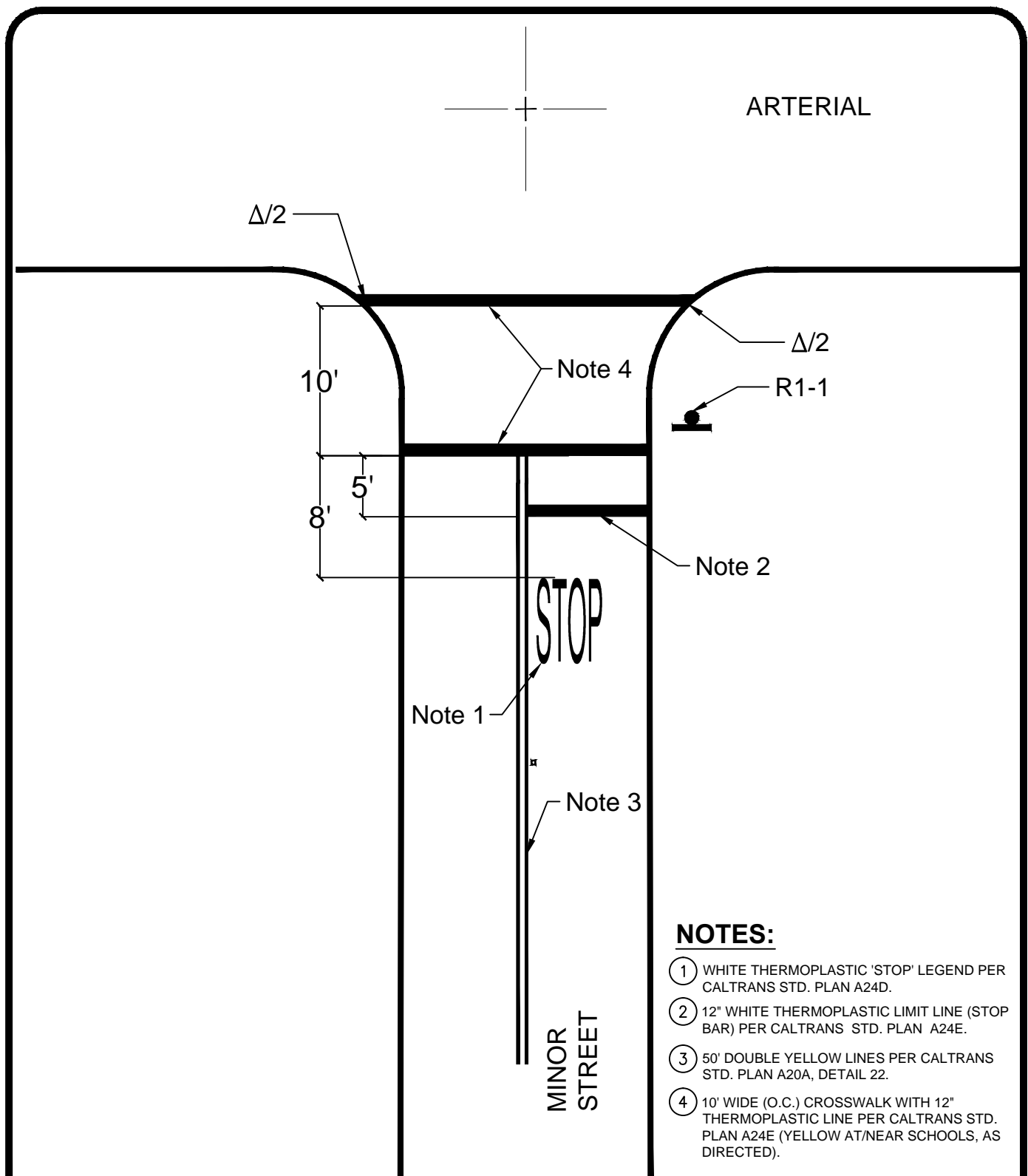
CITY OF COSTA MESA
PUBLIC SERVICES DEPARTMENT

LIMIT LINE & LEGEND - CASE B
TYPICAL INSTALLATION AT MINOR ST. TO ARTERIAL


Costa Mesa

RECOMMENDED _____
RAJA SETHURAMAN _____ DATE _____

STD. DWG. NO.
901B



NOTES:

- ① WHITE THERMOPLASTIC 'STOP' LEGEND PER CALTRANS STD. PLAN A24D.
- ② 12" WHITE THERMOPLASTIC LIMIT LINE (STOP BAR) PER CALTRANS STD. PLAN A24E.
- ③ 50' DOUBLE YELLOW LINES PER CALTRANS STD. PLAN A20A, DETAIL 22.
- ④ 10' WIDE (O.C.) CROSSWALK WITH 12" THERMOPLASTIC LINE PER CALTRANS STD. PLAN A24E (YELLOW AT/NEAR SCHOOLS, AS DIRECTED).

CITY OF COSTA MESA

PUBLIC SERVICES DEPARTMENT

LIMIT LINE & LEGEND - CASE C

TYPICAL INSTALLATION AT CROSSWALK



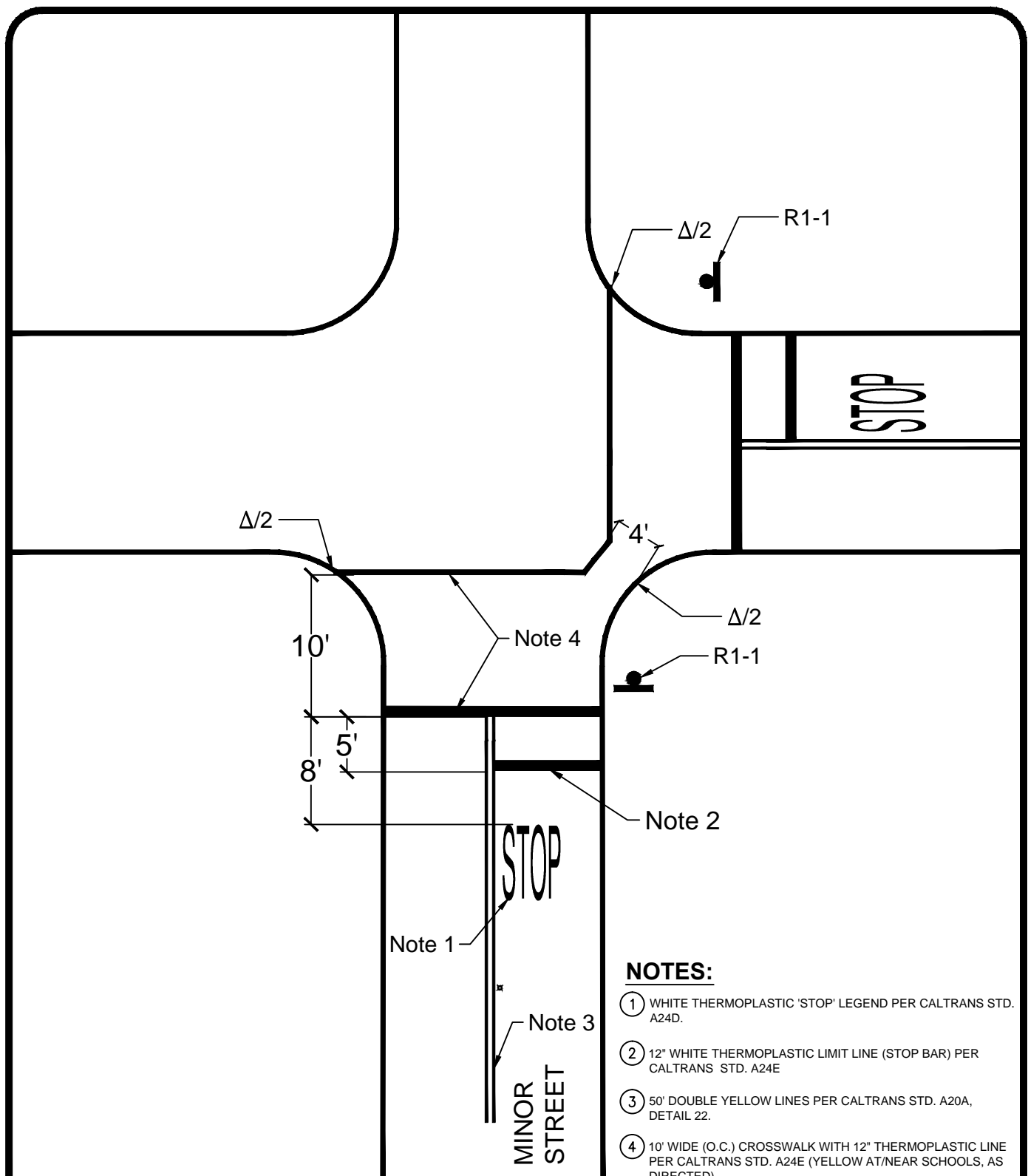
RECOMMENDED

RAJA SETHURAMAN

DATE

STD. DWG. NO.

901C



NOTES:

- ① WHITE THERMOPLASTIC 'STOP' LEGEND PER CALTRANS STD. A24D.
- ② 12" WHITE THERMOPLASTIC LIMIT LINE (STOP BAR) PER CALTRANS STD. A24E
- ③ 50' DOUBLE YELLOW LINES PER CALTRANS STD. A20A, DETAIL 22.
- ④ 10' WIDE (O.C.) CROSSWALK WITH 12" THERMOPLASTIC LINE PER CALTRANS STD. A24E (YELLOW AT/NEAR SCHOOLS, AS DIRECTED).

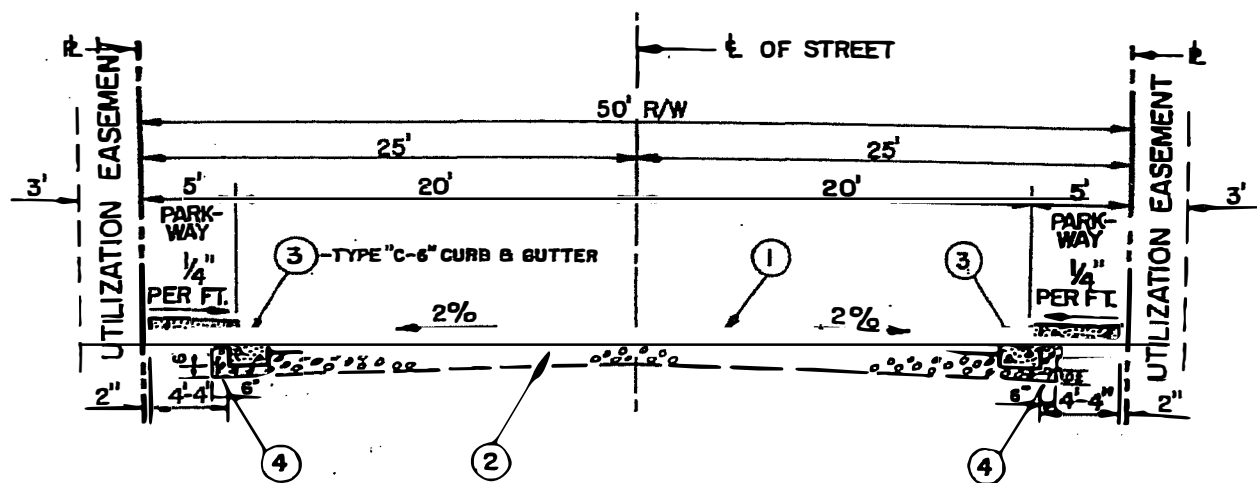
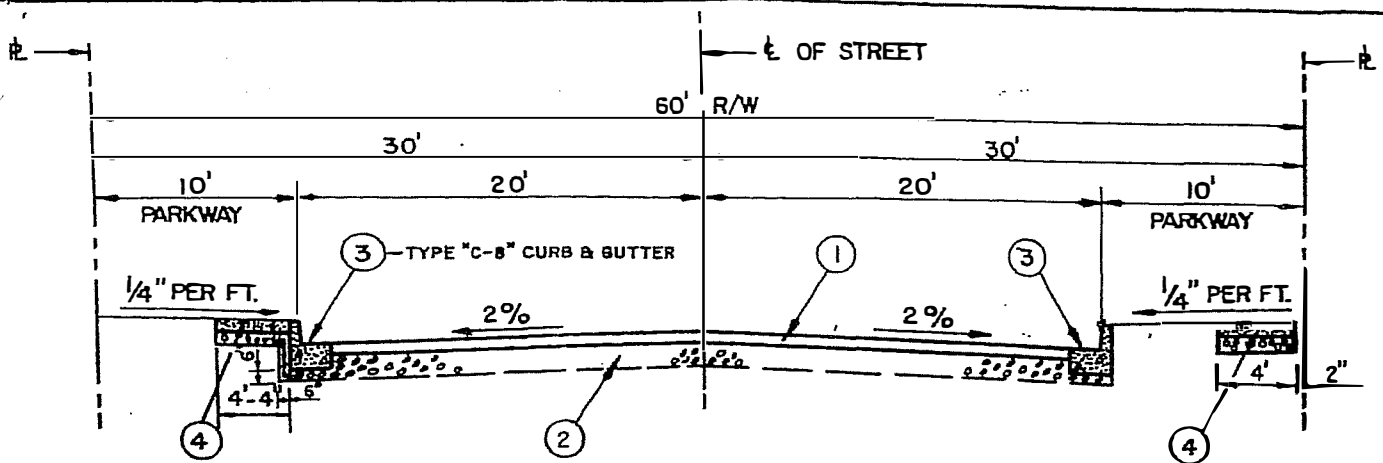
CITY OF COSTA MESA
PUBLIC SERVICES DEPARTMENT

LIMIT LINE & LEGEND - CASE D
TYPICAL INSTALLATION AT CROSSWALK

Costa Mesa

RECOMMENDED _____
RAJA SETHURAMAN _____ DATE _____

STD. DWG. NO.
901D



NOTE:

50' R/W TO BE USED WITH CITY COUNCIL APPROVAL ONLY.

NOTES:

- ① ASPHALTIC CONCRETE PAVEMENT (4" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING.
- ② CRUSHED AGGREGATE BASE (8" THICKNESS). ACTUAL THICKNESS TO BE DETERMINED AFTER ROUGH GRADING.
- ③ TYPE "C-5" OR "C-6" CURB AND GUTTER PER STD. DWG. NO. 312.
- ④ 4" P.C.C. SIDEWALK PER STD. DWG. NO. 411.

DRIVEWAY LOCATIONS AND SLOPES SHALL BE APPROVED BY THE CITY ENGINEER ON STREETS WITH 50' R/W.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

TYPICAL SECTION
60' & 50' RESIDENTIAL STREETS

APPROVED

BRUCE D. MATTEO

R.C.E. 19388

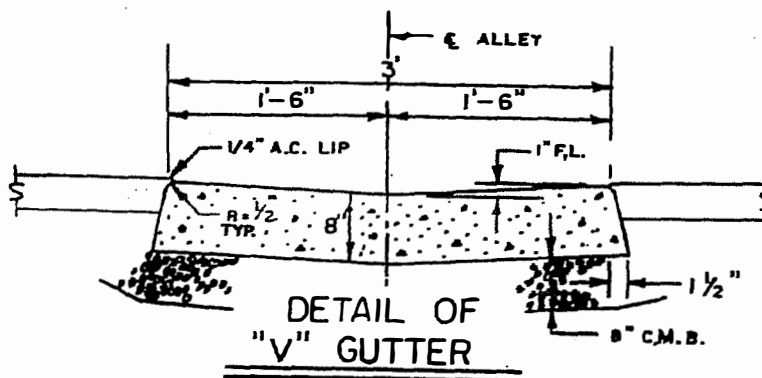
DRAWN J.C.B.

SCALE NONE

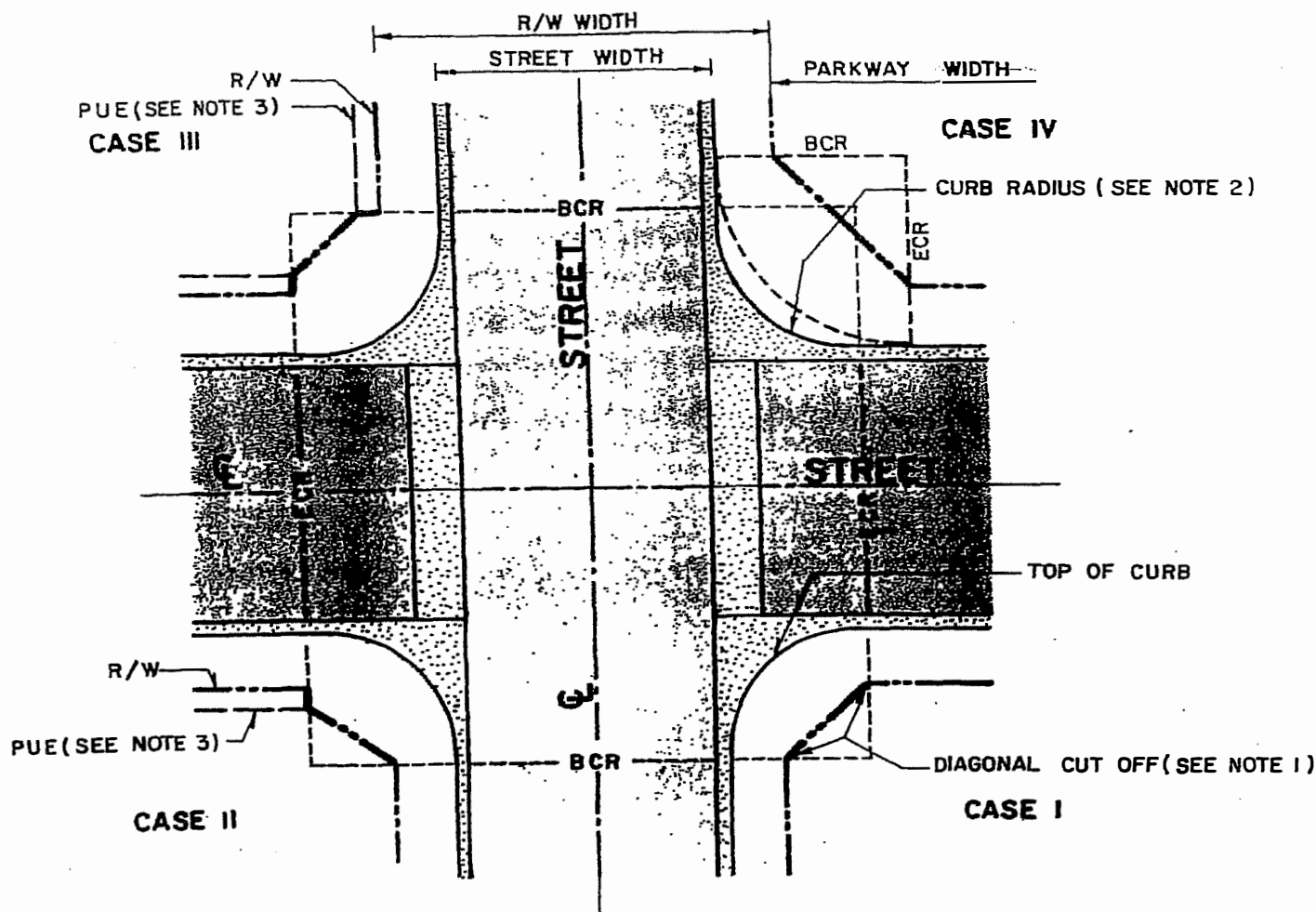
STD. DWG. NO.

114

REV.



118



PLAN

PARKWAY WIDTHS:

5'	FOR	50'	R/W
10'	FOR	60'	R/W
7'	FOR	84'	R/W
7'	FOR	106'	R/W
8'	FOR	120'	R/W

NOTES:

1. THE PROPERTY LINE DIAGONAL CUT-OFF IS A STRAIGHT LINE DRAWN BETWEEN THE R/W LINES (OR PUE LINES, IF EXISTING) AT THE BCR AND ECR.
2. ALL CURB RETURN RADII SHALL BE 25' UNLESS BOTH STREETS ARE ON THE MASTER PLAN OF HIGHWAYS, AND THEN THE DIAGONAL CUT-OFF SHALL BE FOR A 35' CURB RETURN RADIUS.
3. ALL 50' STREETS REQUIRE A 3' PUBLIC UTILIZATION EASEMENT. SEE STD. DWG. NO. 114.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

CURB RETURN RADII AND PROPERTY
LINE DIAGONAL CUT-OFF

APPROVED

BRUCE D. MATTERN R.C.E. 19388

DATE

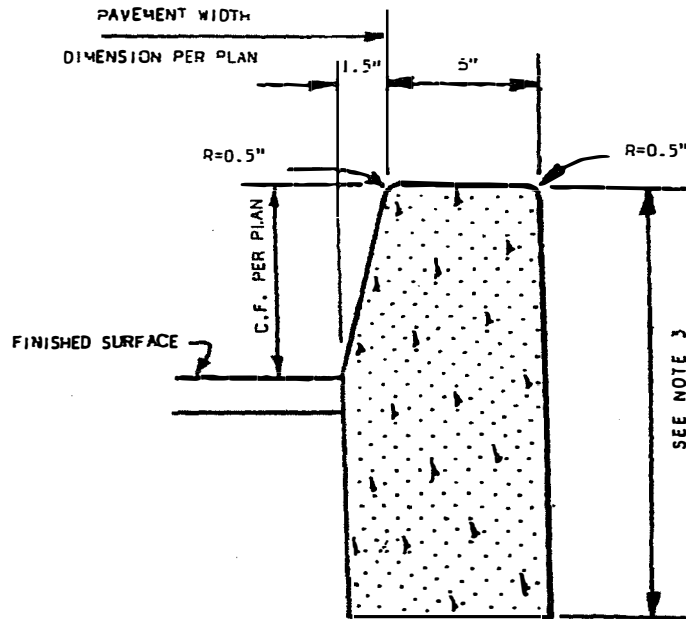
12/13/85

DRAWN F.S.

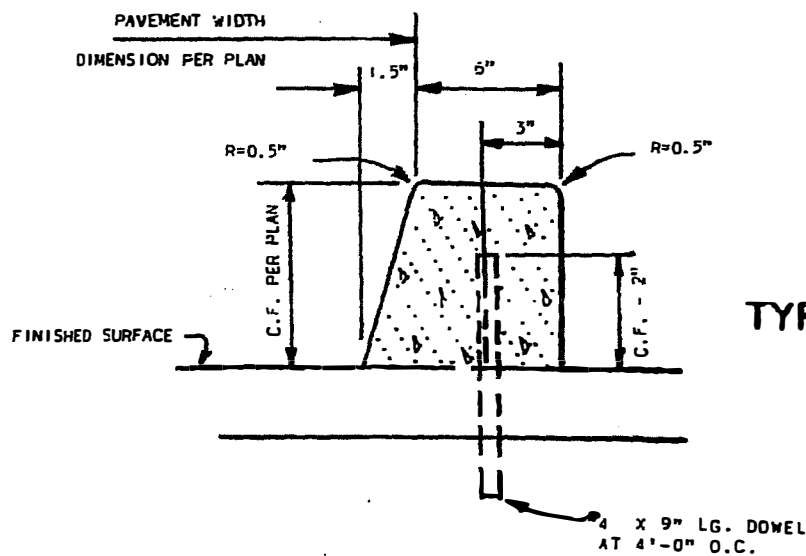
SCALE NONE

STD. DWG. NO.

214



TYPE "A" CURB



TYPE "B" CURB

NOTES

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT ALL MEDIAN NOSES. 1/8" X 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED AT 10' INTERVALS. FOR DETAILS SEE STD. DNG. NO. 314.
2. DOWELS FOR TYPE "B" CURB MAY BE DELETED WHEN EXTRUDED CONCRETE IS BONDED TO THE PAVEMENT WITH APPROVED ADHESIVE, EXCEPT THE ISLAND NOSES WHICH SHALL BE DOWELED.
3. WHERE MEDIANS ARE LANDSCAPED, CURB SHALL EXTEND 6" BELOW SUB-GRADE AND BE BACKED WITH A 20 MIL PLASTIC MOISTURE BARRIER THAT EXTENDS 6" BELOW CURB. C.F. AND H SHALL BE PER PLAN.
4. THESE CURBS ARE NON-WATER CARRYING. TRANSITION TO TYPE "C" CURB AND GUTTER PER PLAN.
5. CONCRETE SHALL BE 560-~~C-310~~ PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2.

REVISED 4-16-86

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

TYPES "A" & "B" CURBS

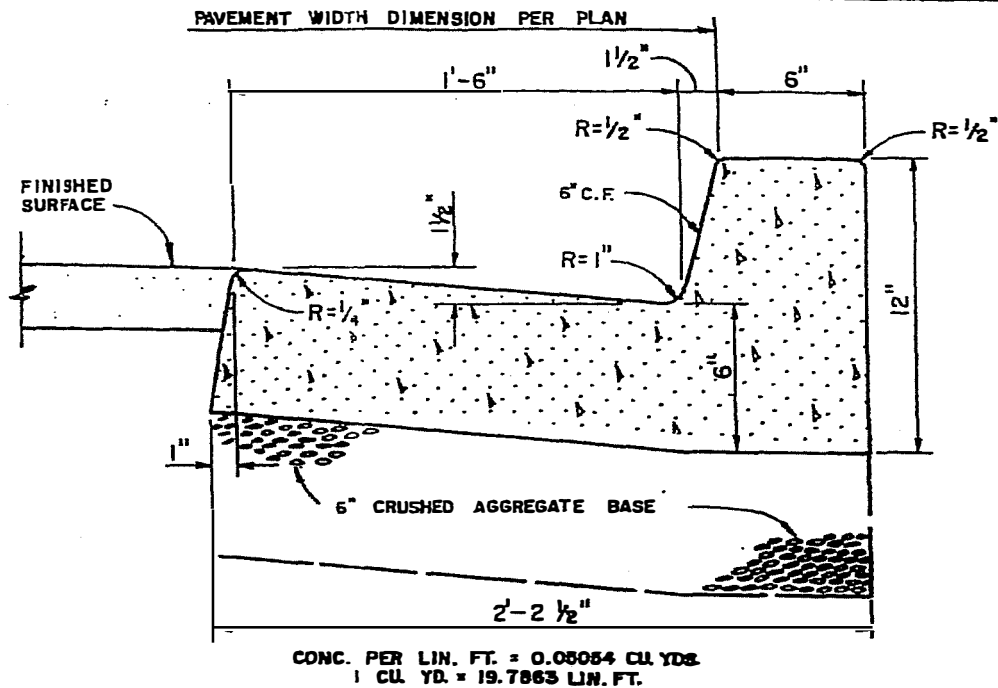
APPROVED *B. D. Matthei* DATE 4/23/86
BRUCE MATTHEI R. C. E. 14189

DRAWN DWL

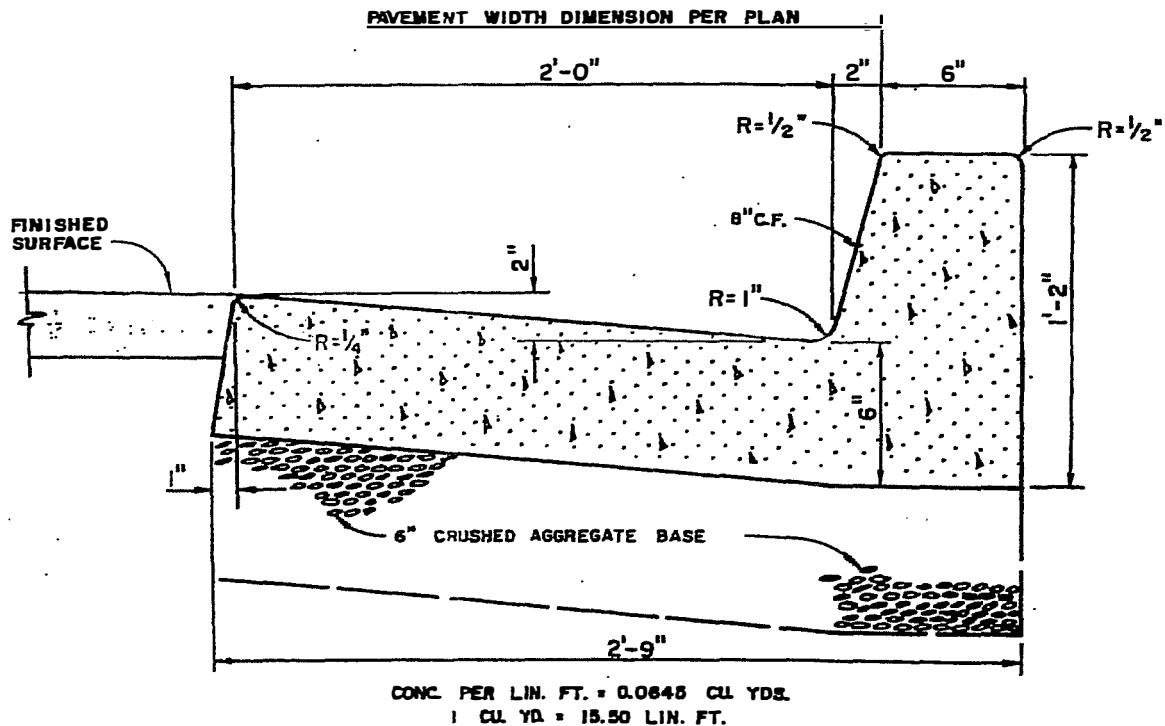
SCALE NONE

STD. DNG. NO.

311



TYPE "C-6" CURB & GUTTER



TYPE "C-8" CURB & GUTTER

NOTES:

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT ALL B.C.R.'S E.C.R.'S AND 1/8"X2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED AT 10' INTERVALS. FOR DETAILS, SEE STD. DWG. NO. 314.
2. CONCRETE SHALL BE 560-C-325 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2.
3. SUBGRADE RELATIVE COMPACTION SHALL NOT BE LESS THAN 90%.

CITY OF COSTA MESA

CALIFORNIA

PUBLIC SERVICES DEPARTMENT

TYPE "C" CURB & GUTTER

APPROVED

BRUCE D. MATTERN R.C.E. 19388

DATE

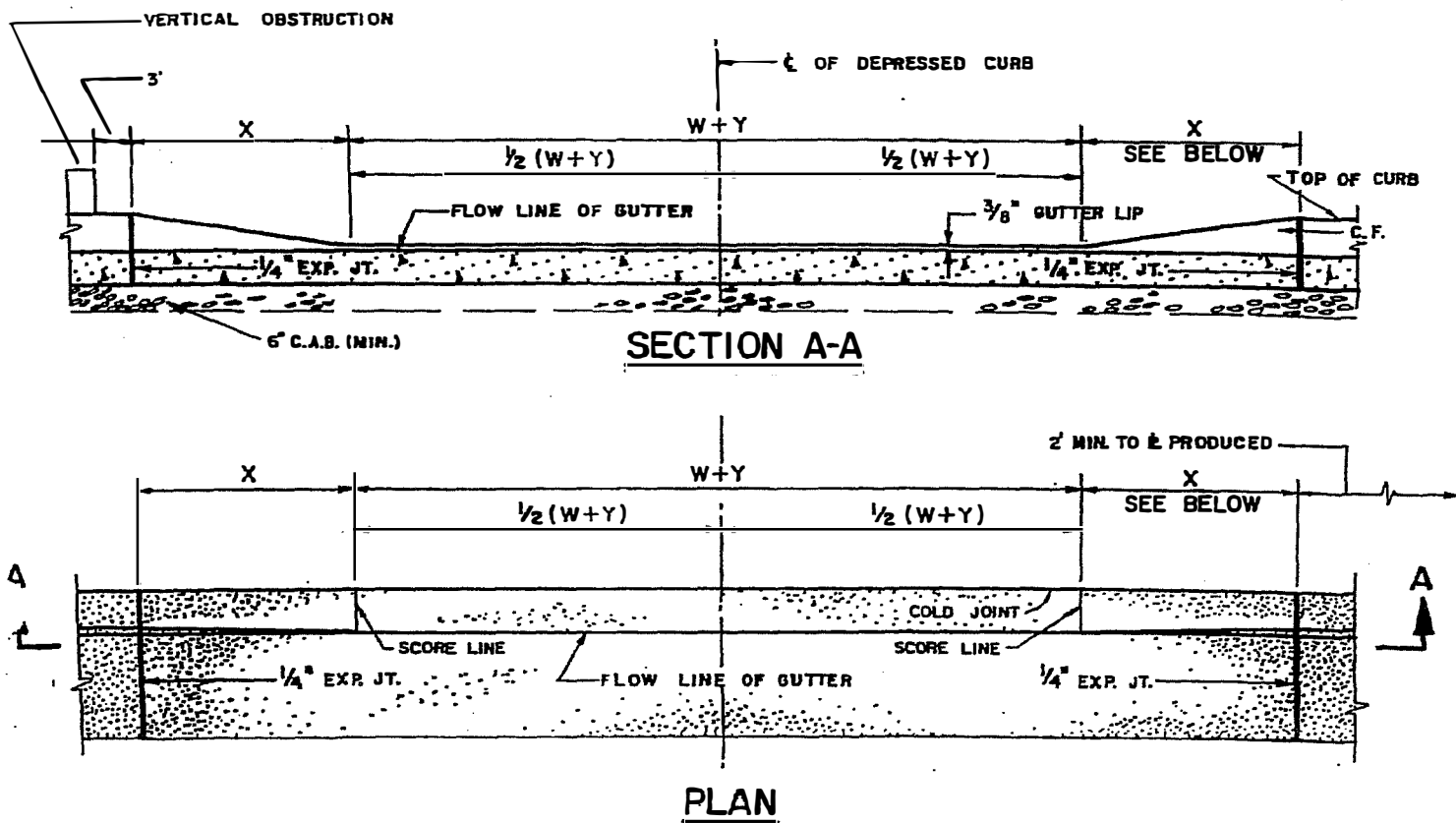
12/13/85

DRAWN M.K.S.

SCALE NONE

STD. DWG. NO.

312



NOTES:

1. FOR CURB AND GUTTER DETAILS, SEE STD. DWG. NO. 312.
2. FOR JOINT DETAILS, SEE STD. DWG. NO. 314.
3. CONCRETE TO BE 560-C-3250 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2
4. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY TRANSPORTATION SERVICES ENGINEER.

DIMENSIONS:

W=10' MIN.-16' MAX. FOR RESIDENTIAL DRIVEWAYS IN R-1 ZONE. Y=0.
W=16' MIN.-26' MAX. FOR OTHER DRIVEWAYS.
X= 4' FOR 6" CURB FACE.
X= 5' FOR 8" CURB FACE.

CITY OF COSTA MESA

CALIFORNIA

PUBLIC SERVICES DEPARTMENT

DEPRESSED CURB
FOR DRIVEWAY APPROACH

APPROVED

B.D. Mattern DATE 12/13/85
BRUCE D. MATTERN R.C.E. 19388

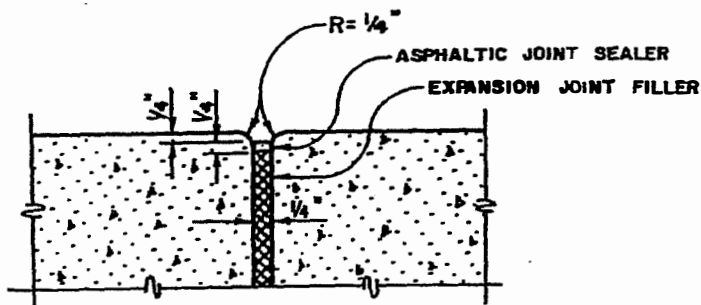
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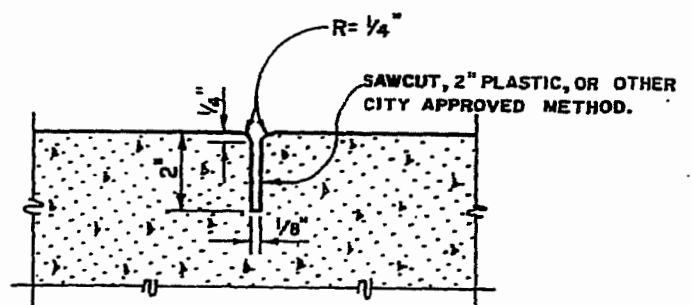
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313

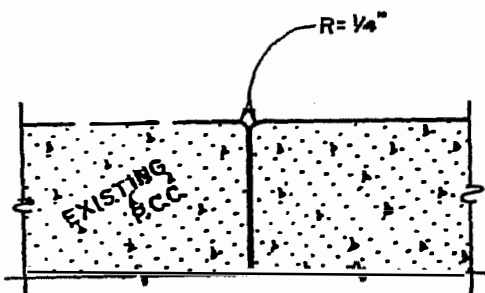
REV.



1/4" EXPANSION JOINT
40' INTERVALS



1/8" x 2" WEAKENED PLANE JOINT
10' INTERVALS



CONSTRUCTION JOINT

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

JOINT DETAILS

APPROVED

B.D. Mattern
BRUCE D. MATTERN R.C.E. 19388

DATE

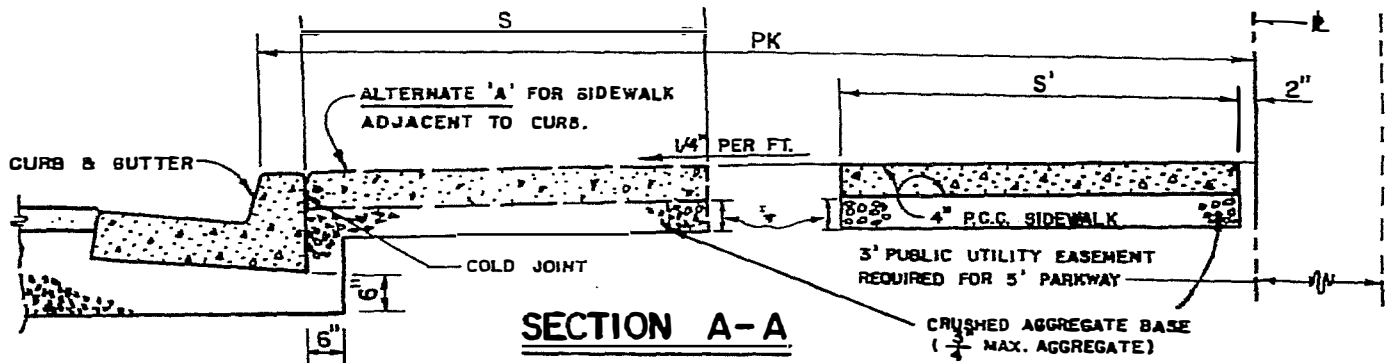
12/13/85

DRAWN M.K.S.

SCALE NONE

STD. DWG. NO.

314



DIMENSIONS:

PK = PARKWAY WIDTH

S = SIDEWALK WIDTH

50' R/W -- PK = 5'

60' R/W -- PK = 10'

84' R/W -- PK = 7'

106' R/W -- PK = 7'

120' R/W -- PK = 8'

S' = 4'-0"

S = 4'-4"

S = 4'-4"

S = 4'-4"

S = 4'-4"

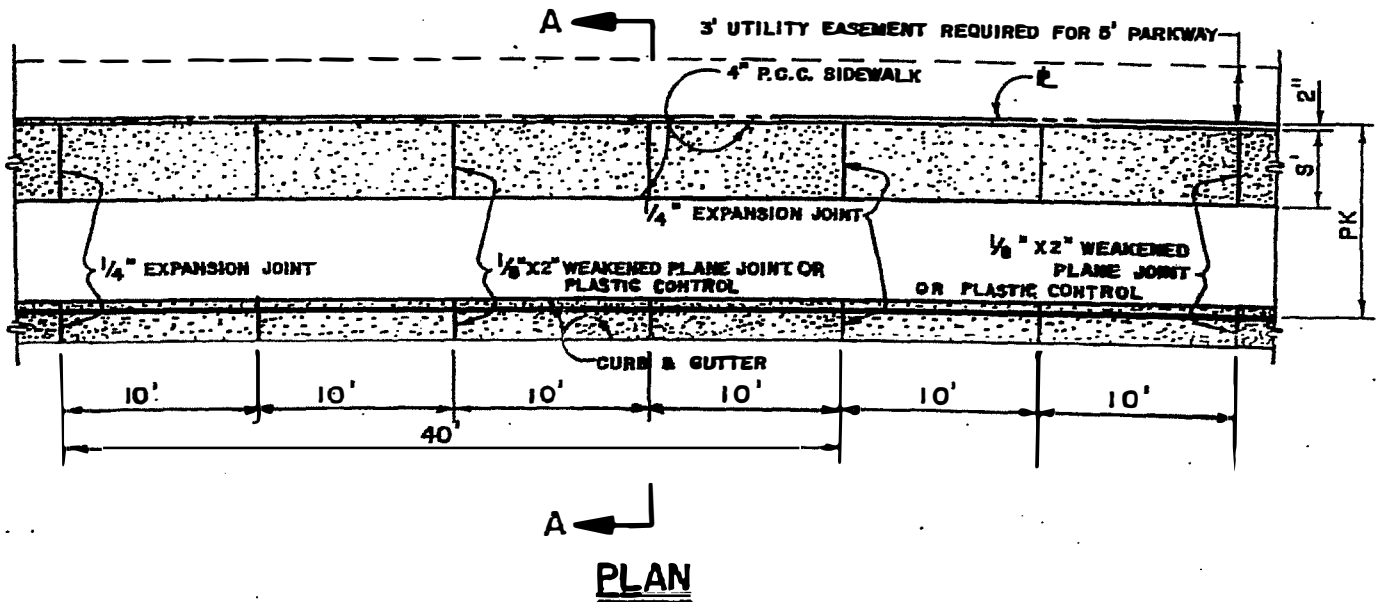
S = 4'-4"

S = 4'-4"

RESIDENTIAL, 6'-4" COMMERCIAL & INDUSTRIAL

RESIDENTIAL, 6'-4" COMMERCIAL & INDUSTRIAL

RESIDENTIAL, 7'-4" COMMERCIAL & INDUSTRIAL



NOTES:

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT THE END OF ALL CURB RETURNS.
2. 1/8" X 2" PLASTIC CONTROL OR WEAKENED PLANE JOINTS SHALL BE PLACED AT 10' INTERVALS.
3. EXPANSION JOINTS AND WEAKENED PLANE JOINTS FOR SIDEWALK SHALL BE PLACED TO COINCIDE WITH JOINTS OF THE CURB.
4. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAILS, SEE STD. DWG. NO. 314.
5. SIDEWALK THICKNESS IS 4" EXCEPT AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
6. CONCRETE SHALL BE 320-C-2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS SEC. 201-1.3.2.
7. 10' INTERVAL BETWEEN TRANSVERSE JOINTS MAY BE VARIED. IF JOINING EXISTING IMPROVEMENTS AND APPROVED BY CITY ENGINEER.
8. WIDEN SIDEWALK TO PROVIDE MIN. CLEAR DISTANCE PER STD. DWG. NO. 413.
9. ALL EXPOSED CORNERS ON SIDEWALK SHALL BE ROUNDED OFF WITH 1/2" RADIUS, EXCEPT AS OTHERWISE SHOWN ON STD. DWG. NO. 314.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

STANDARD SIDEWALK DETAILS

APPROVED

BRUCE D. MATTERN R.C.E. 19386

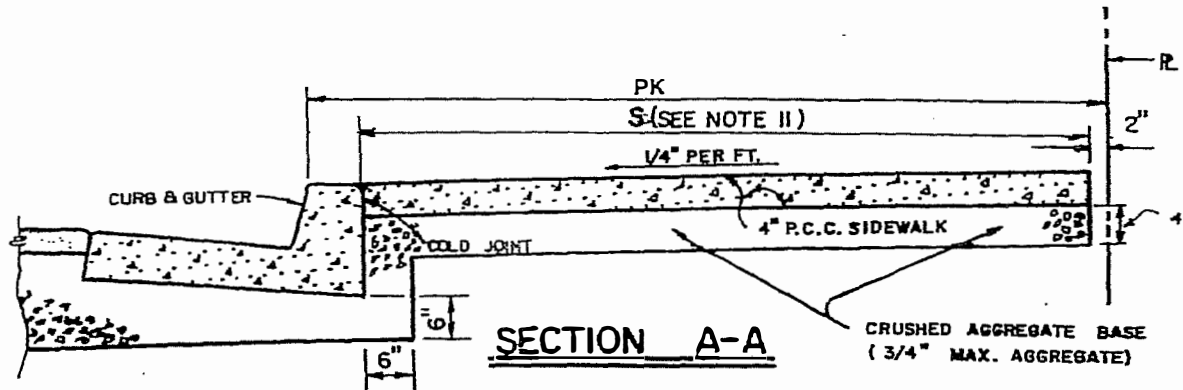
DATE 12/12/05

DRAWN W.A.B.

SCALE NONE

STD. DWG. NO.

411

**DIMENSIONS:**

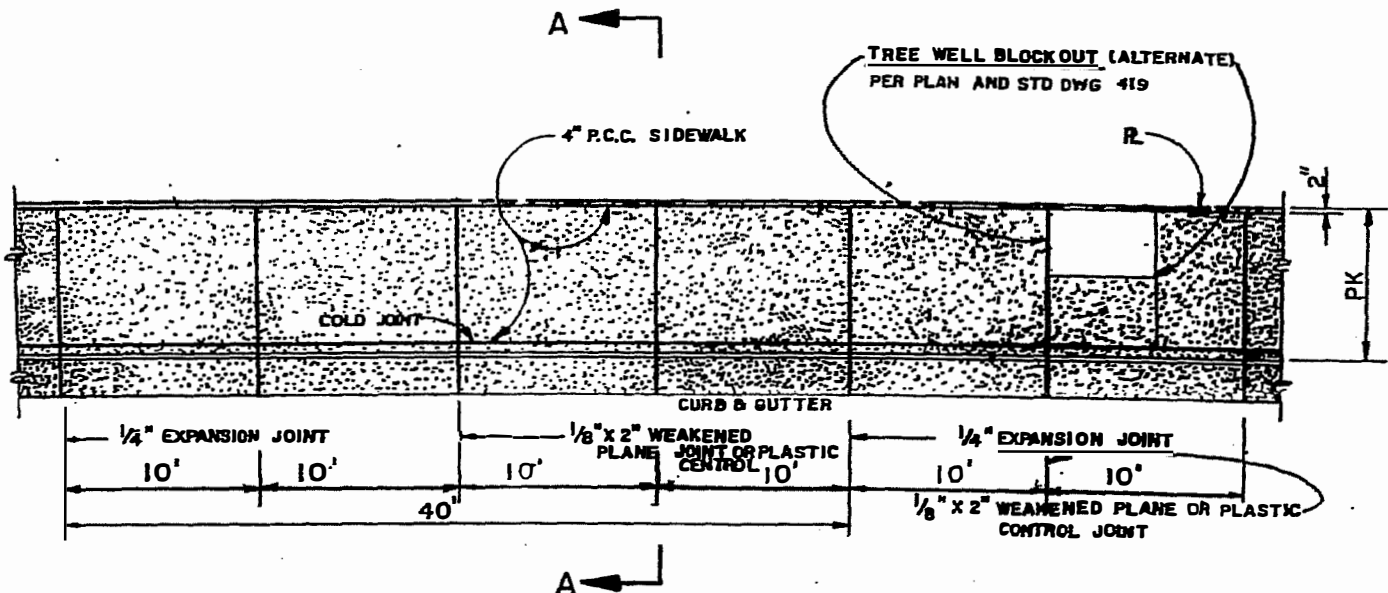
PK = PARKWAY WIDTH

60' R/W -- PK = 10'

84' R/W -- PK = 7'

106' R/W -- PK = 7'

120' R/W -- PK = 8'

**PLAN****NOTES:**

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT 40' INTERVALS AND AT THE END OF ALL CURB RETURNS.
2. 1/8" X 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED AT 10' INTERVALS.
3. EXPANSION JOINTS AND WEAKENED PLANE JOINTS FOR SIDEWALK SHALL BE PLACED TO COINCIDE WITH JOINTS OF THE CURB.
4. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAILS, SEE STD. DWG. NO. 314.
5. SIDEWALK THICKNESS IS 4" EXCEPT AT DRIVEWAYS WHERE IT SHALL BE 6" THICK.
6. CONCRETE SHALL BE 520 C 2500 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.1.2.
7. TREE WELL BLOCKOUTS TO BE CONSTRUCTED W/ LOCATION & SPACING PER PLAN.
8. JO INTERVAL BETWEEN TRANSVERSE JOINTS MAY BE VARIED IF JOINING EXISTING IMPROVEMENTS.
9. ALL EXPOSED CORNERS ON SIDEWALK SHALL BE ROUNDED WITH 1/2" RADIUS, EXCEPT AS OTHERWISE SHOWN ON STD. DWG. NO. 314.
10. WIDEN SIDEWALK TO PROVIDE MIN. CLEAR DISTANCE PER STD. DWG. NO. 413.
11. SIDEWALK WIDTH(S) SHALL BE PER STD. DWG. NO. 411.

REV. 6-25-80 H.R.
REV. 2-2-79 CMO
REV. 3-23-78
REV. 5-12-77
REV. 12-23-75

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICE DEPARTMENT

COMMERCIAL SIDEWALK DETAILS

APPROVED

BD
DAUCE G. MATERN R.C.E. 1938B

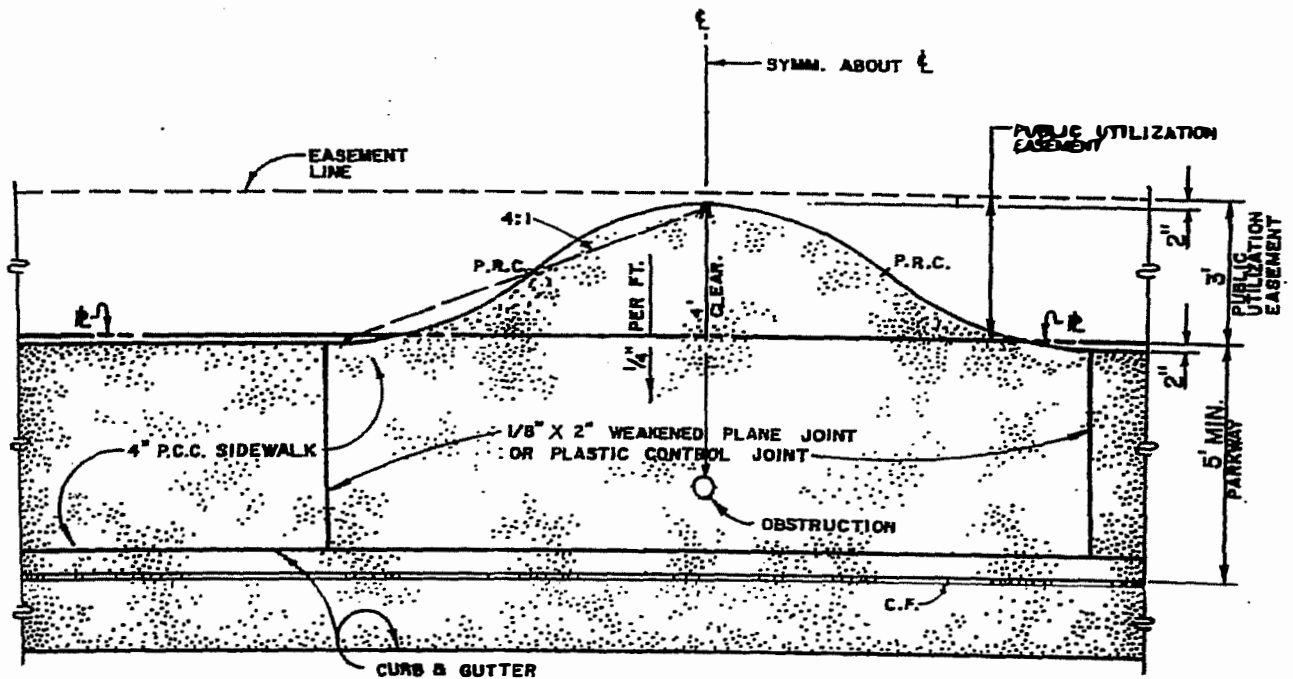
DATE

DRAWN W.A.B.

SCALE NONE

STD. DWG. NO.

412



PLAN

NOTES:

1. FOR STANDARD SIDEWALK DETAILS, SEE STD. DWG. NO. 411 AND/OR 412.
2. FIRE HYDRANTS SHALL BE 2' CLEAR OFF OF THE CURB FACE.
3. NO VERTICAL OBSTRUCTION WITHIN 3' CLEAR OF DRIVEWAY TOP OF "X".
4. MAILBOXES SHALL BE 6" CLEAR OFF THE CURB FACE, ULTIMATE LOCATION, HEIGHT, AND MATERIAL TO BE APPROVED BY LOCAL POSTMASTER.
5. POWER POLES, GUY ANCHORS, AND STREET LIGHTS SHALL BE 18" CLEAR OFF CURB FACE.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

SIDEWALK OBSTRUCTIONS FLARE

APPROVED

BRUCE D. MATYERN R.C.E. 19388

DATE

DRAWN W.A.B.

SCALE NONE

STD. DWG. NO.

413

DIMENSIONS:

PK = PARKWAY WIDTH

8' SIDEWALK WIDTH SEE NOTE 7

50' R/W — PK=5'

50' R/W — PK=10'

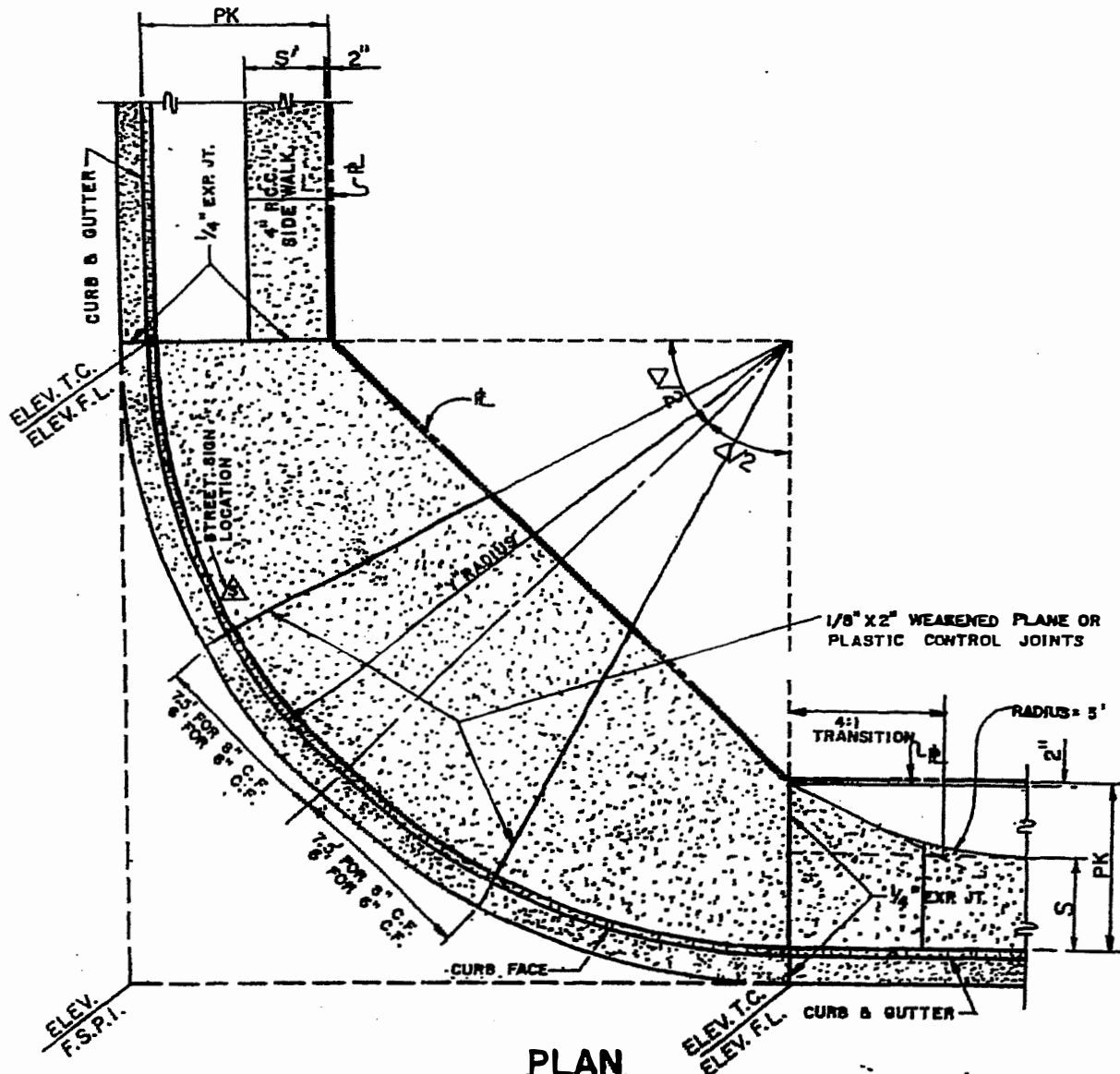
84' R/W — PK=7'

106' R/W — PK=7'

120' R/W — PK=8'

"Y" — RADIUS VARIES (25' OR 35')

5' = 4'-0"



PLAN

NOTES:

1. 1/4" EXPANSION JOINTS SHALL BE PLACED AT END OF CURB RETURNS.
2. 1/8" X 2" WEAKENED PLANE OR PLASTIC CONTROL JOINTS SHALL BE PLACED SO AS NOT TO EXCEED 10' O.C. AT R.
3. FOR EXPANSION JOINT AND WEAKENED PLANE JOINT DETAILS, SEE STD. DWG. NO. 314.
4. CONCRETE SHALL BE PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201.11.2, CLASS 520C-2500
5. ALL ELEVATIONS PER PLAN. FOR CROSS GUTTERS F.L.P.I. PER STD. DWG. NO. 415 SHALL BE SHOWN ON PLAN.
6. FOR STREET RADIUS DATA, SEE STD. DWG. NO. 314.
7. SEE STD. DWG. NO. 411, 412 AND 413 FOR BASE AND SIDEWALK REQUIREMENTS.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

STANDARD SIDEWALK RETURN

APPROVED

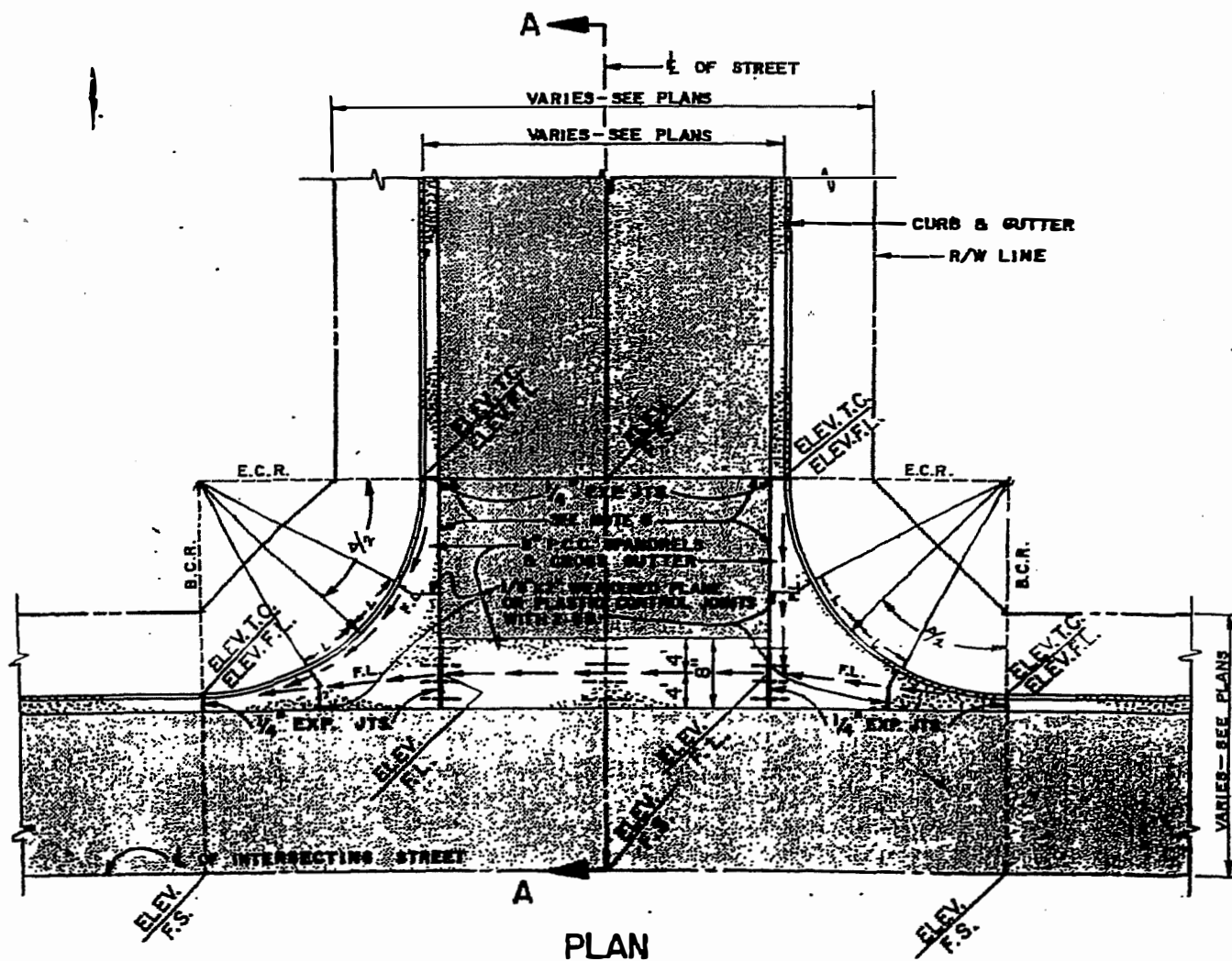
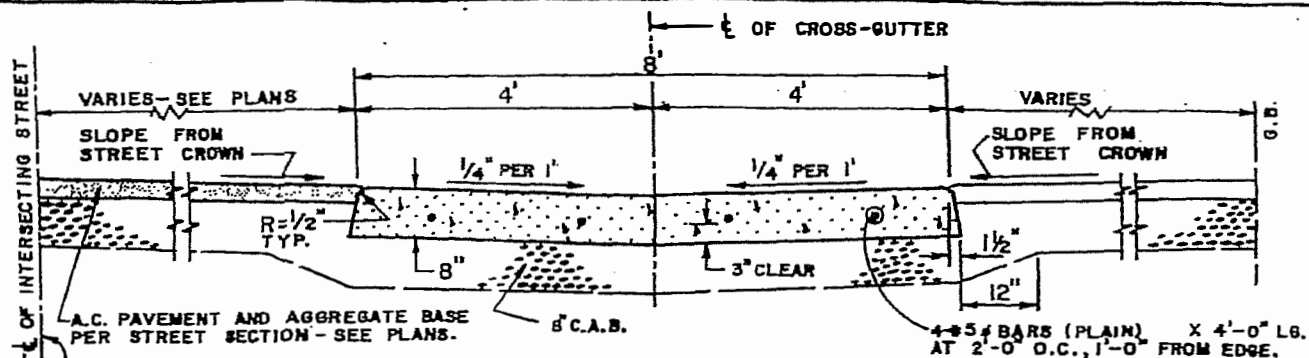
DATE

DRAWN W.A.B.

SCALE NONE

STD. DWG. NO.

414



NOTES:

1. SMOOTH TROWEL 8" WIDE FLOW LINE IN CROSS-GUTTER AND SPANDRELS.
2. AGGREGATE BASE THICKNESS FOR SPANDRELS SHALL BE THE SAME AS FOR CROSS-GUTTER.
3. POUR CURB MONOLITHICALLY WITH SPANDREL.
4. FOR JOINT DETAILS, SEE STD. DWG. NO. 314 AND 414.
5. CONCRETE SHALL BE 860 C 3250 PER CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PAVED WORKS CONSTRUCTION, SEC 201-1.1.2.
6. ALL ELEVATIONS SHALL BE PER PLAN.
7. DISTANCE L FROM MIDDLE ORIGINATE OF CURB RETURN TO JOINT SHALL BE 7' FOR 8" C.F. OR 6' FOR 6" C.F..
8. ANY CROSS-GUTTER TO BE CONSTRUCTED ON LESS THAN 0.20 % SHALL HAVE DRAINAGE STRUCTURES CONSTRUCTED TO MITIGATE THE ADVERSE EFFECTS OF NUISANCE WATER AND FULL CONCRETE APRON WITH EXPANSION JOINTS ALONG Q AND ALONG EDGE OF GUTTERS.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

TYPICAL CROSS-GUTTER.

APPROVED

BRUCE D. MATTERN R.C.E. 1958

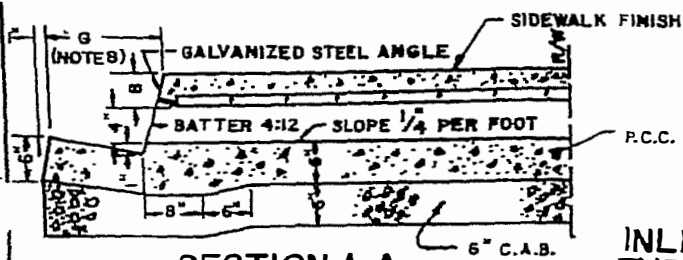
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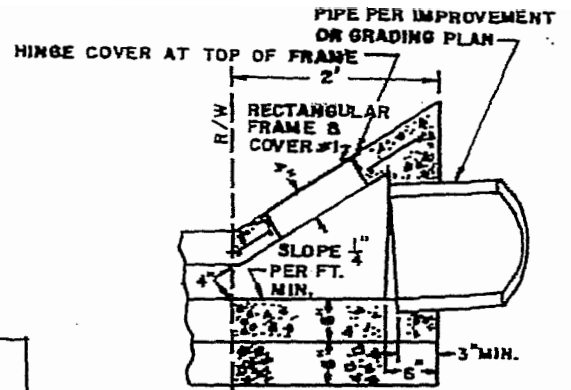
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STD. DWG. NO.	
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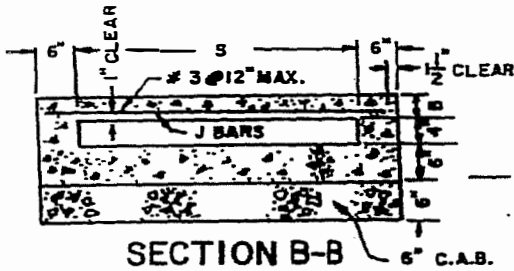
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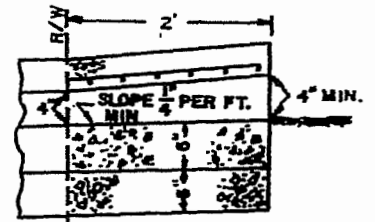
SECTION A-A



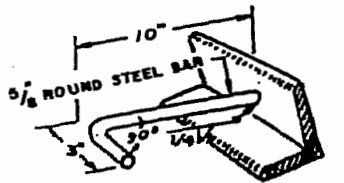
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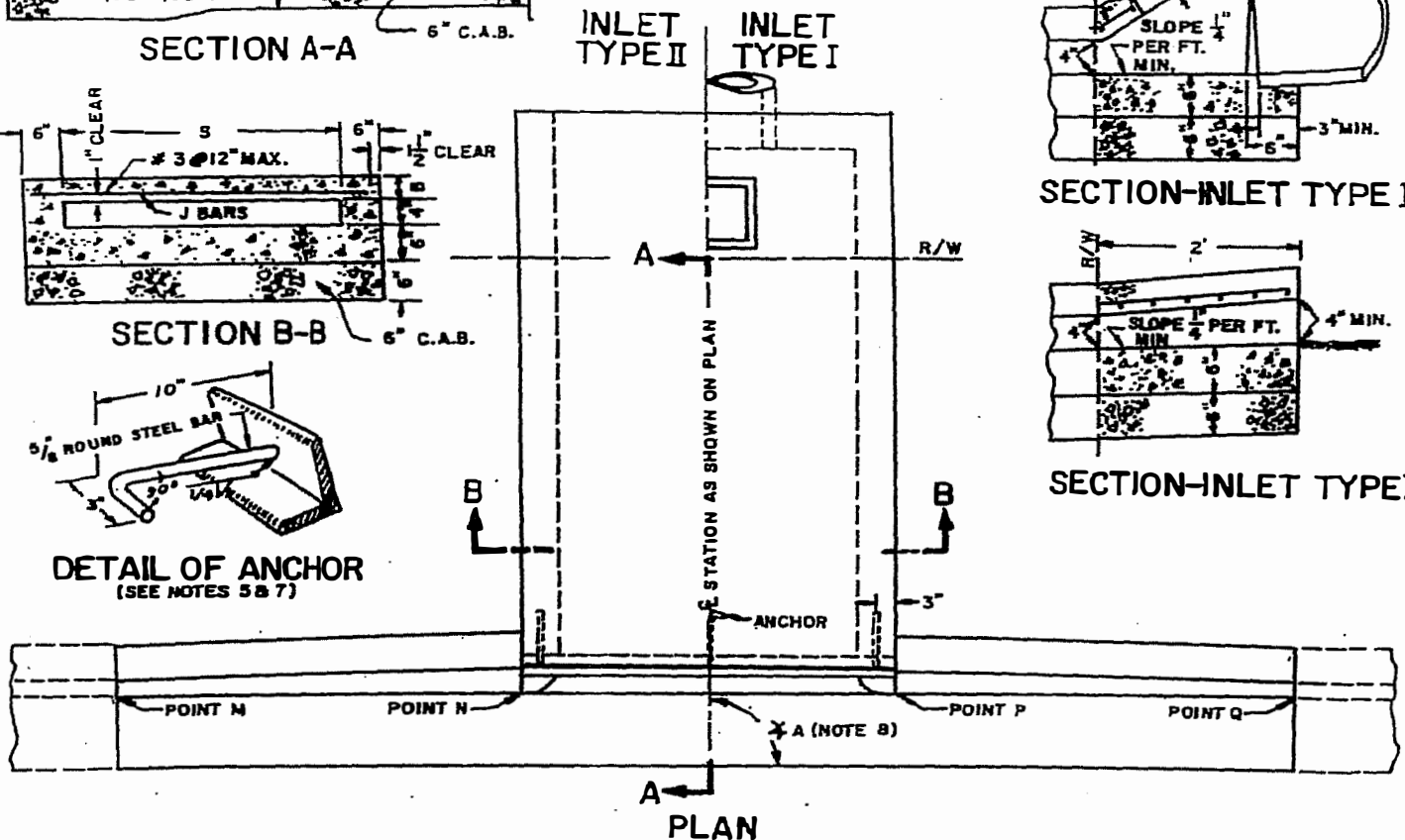
SECTION B-B



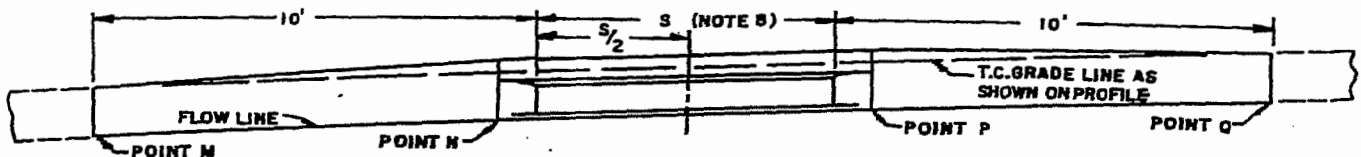
SECTION-INLET TYPE II



DETAIL OF ANCHOR
(SEE NOTES 5 & 7)



PLAN



PROFILE

NOTES:

- FLOOR OF BOX TO BE TROWELED SMOOTH.
- WHEN THE TOE OF SLOPE IS WITHIN THE R/W, INLET TYPE I BEGINS AT THE TOE RATHER THAN AT THE R/W LINE.
- FOR OPEN DITCH APPROACH (TYPE II) THE 2' EXTENSION IS NOT REQUIRED WHEN THE BACK OF WALK IS 2' OR MORE FROM THE R/W LINE.
- TOP OF INLET STRUCTURE (TYPE I & II) TO BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICABLE.
- A HEADED STEEL STUD $\frac{5}{8} \times 4 \frac{1}{2}$ WITH HEAD D-1" ATTACHED BY A FULL PENETRATION BUTT WELD MAY BE USED AS AN ALTERNATE ANCHOR.
- NORMAL CURB FACE AT POINT M AND Q, 8"± AT POINT N AND P.
- THE 3" LEG OF THE INTERIOR ANCHORS SHALL BE PARALLEL TO THE TOP OF SIDEWALK.
- G, S, AND FA SHALL BE PER IMPROVEMENT PLANS.
- CURB BATTER SHALL CONFORM TO EXISTING ADJOINING CURB. SEE STD. DWG. NO. 311.
- CONCRETE SHALL BE CLASS 560 C 3250.

STEEL LIST

S	B	SALVANIZED STEEL ANGLE	ANCHOR	J BAR	SPACING	LENGTH
1'-0"	3"	2" X 2" X 1/4"	2	5/8"	7"	1'-0"
1'-6"	"	"	"	"	"	2'-3"
2'-0"	"	"	"	"	"	2'-0"
2'-6"	"	"	"	"	"	3'-3"
3'-0"	"	"	3	"	"	3'-0"
3'-6"	"	"	"	"	6"	4'-3"
4'-0"	"	"	"	"	8"	4'-0"
4'-6"	4"	3" X 3" X 1/4"	"	"	6"	5'-0"
5'-0"	"	"	"	"	8"	5'-0"
5'-6"	"	"	"	"	4"	6'-3"
6'-0"	"	"	"	"	3"	6'-0"

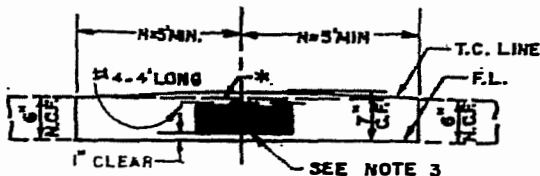
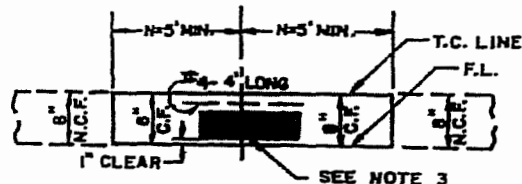
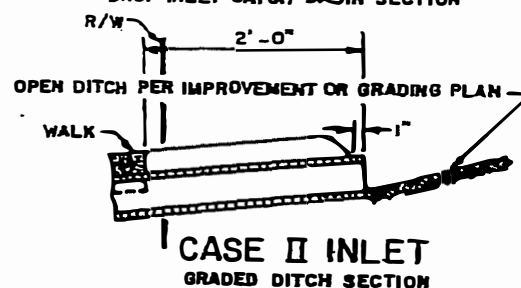
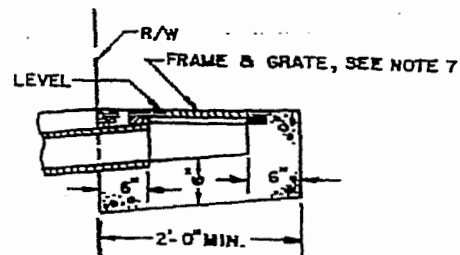
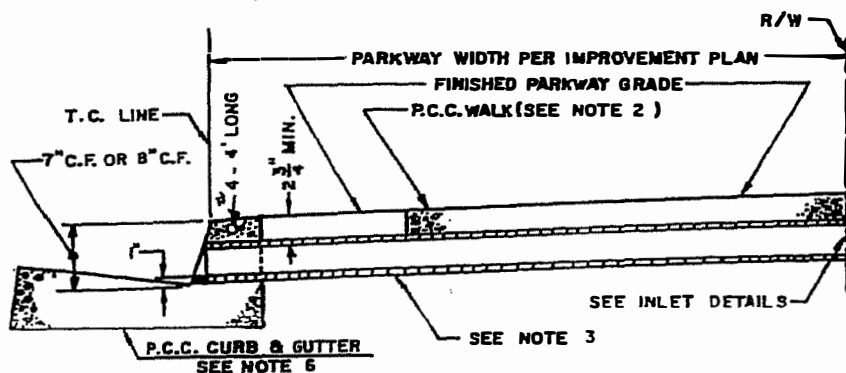
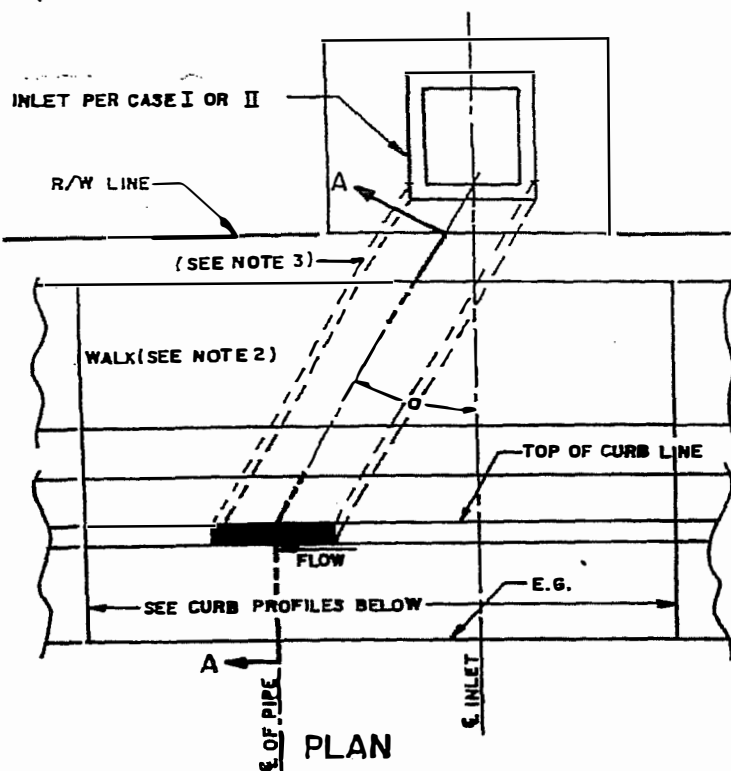
CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

PARKWAY DRAIN NO.1

APPROVED *BD Matten* DATE 12/13/53
BRUCE D. MATTEN R.C.E. 12399

DRAWN *EKS*
SCALE *NONE*
STD. DWG. NO.
417



* NORMAL T.C. GRADE LINE AS SHOWN ON PROFILE

NOTE:

1. TOP OF INLET STRUCTURE (CASE I) TO BE FLUSH WITH ADJACENT SURFACE.
2. CONSTRUCT P.C.C. WALK AND CURB AND GUTTER AS SPECIFIED ON PLAN. MINIMUM REPLACEMENT OF WALK AND CURB AND GUTTER SHALL BE FROM JOINT TO JOINT OR AS DIRECTED BY THE CITY ENGINEER. SEE STD. DWG. NO. 314. THE CONTRACT PRICE PAID FOR P.C.C. WALK ITEM SHALL INCLUDE WALK CONSTRUCTED IN CONJUNCTION WITH PARKWAY CULVERT.
3. ONE CIRCULAR PIPE SHALL BE PLACED AT A LOCATION OTHERWISE THE PIPE SHALL BE ALHAMBRA FOUNDRY A470 OR EQUAL WITH THE SIZE AS SPECIFIED ON PLAN. FOR SIZES OTHER THAN 3\"/>
- 4. INLET CASE TO BE SPECIFIED ON IMPROVEMENT OR GRADING PLAN.
- 5. ANGLE "Q" EQUALS 0° UNLESS OTHERWISE SPECIFIED.
- 6. TYPE, DIMENSIONS, AND ELEVATIONS OF P.C.C. CURB AND GUTTER PER IMPROVEMENT PLAN.
- 7. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR INLET CASE I SHALL BE ALHAMBRA FOUNDRY 14\"/>
- 8. CONCRETE SHALL BE CLASS 520C 2500.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

PARKWAY DRAIN NO.2

APPROVED

B.D. Mattern
BRUCE D. MATTERN R.C.E. 19368

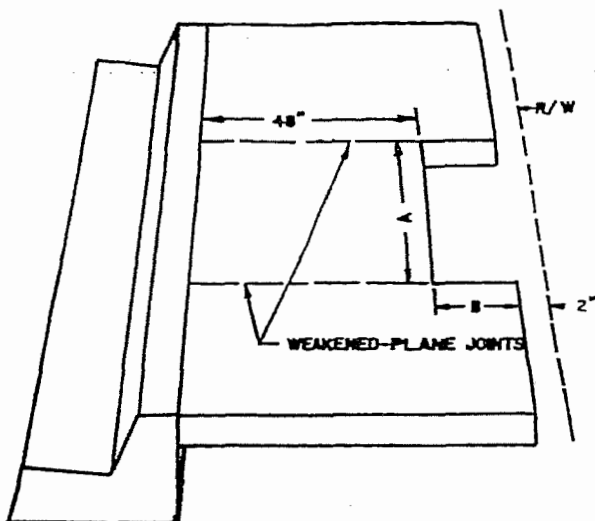
DATE 12/13/85

DRAWN E.K.S.

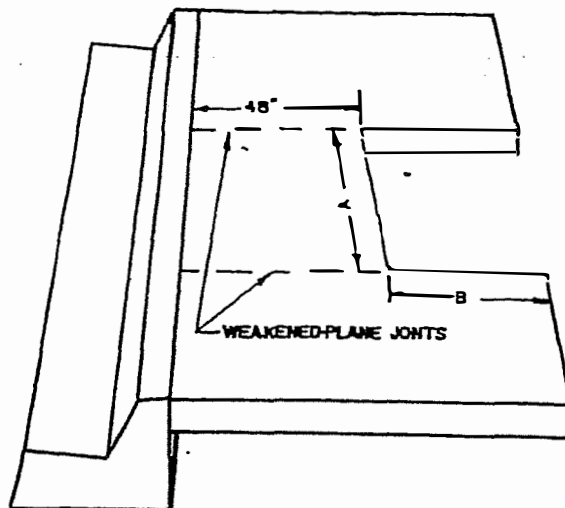
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STD. DWG. NO.

418



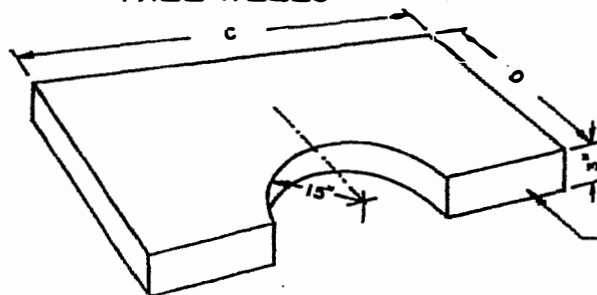
PARKWAYS LESS THAN 8'
1 COVER REQUIRED
CASE I: 2' X 4' TREE WELL



PARKWAYS 8' OR GREATER
2 COVERS REQUIRED
CASE II: 4' X 4' TREE WELL

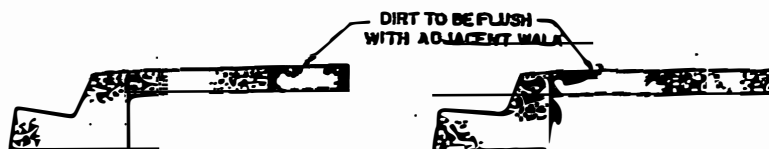
TREE WELLS

CASE	A	B	C	D
I	4'-0"	2'-0"	3'-11"	1'-11 1/2"
II	4'-0"	4'-0"	3'-11"	1'-8 1/2"



Porous, Permeable P.C.C.
REINFORCED WITH 2" X 2"
16 GAUGE WIRE MESH.

POROUS TREE WELL COVER



TYPICAL SECTIONS

NOTES:

1. TREE WELLS SHALL BE PLACED APPROXIMATELY 50' APART, BUT NOT LESS THAN ONE PER RESIDENTIAL LOT.
2. LOCATION OF TREE WELLS WILL BE SUBJECT TO THE FOLLOWING CONDITIONS:
 - A. 25' FROM CURB RETURNS.
 - B. 15' FROM LIGHT STANDARDS AND POWER POLES.
 - C. 10' FROM FIRE HYDRANTS, DRIVEWAYS, HOUSE WALKS, UTILITY METERS, PEDESTALS.
 - D. 10' FROM ALL UTILITY LATERALS AND MAINS.
3. COVERS ARE TO BE COLORED BUFF USING AN ACCEPTABLE COLORING AGENT.
4. TREE WELLS ARE TO BE BACKFILLED WITH CLEAN DIRT AND FLUSH WITH ADJACENT WALK UNTIL TREES ARE PLANTED.

CITY OF COSTA MESA
CALIFORNIA

PUBLIC SERVICES DEPARTMENT

SIDEWALK TREE WELL & COVER

APPROVED

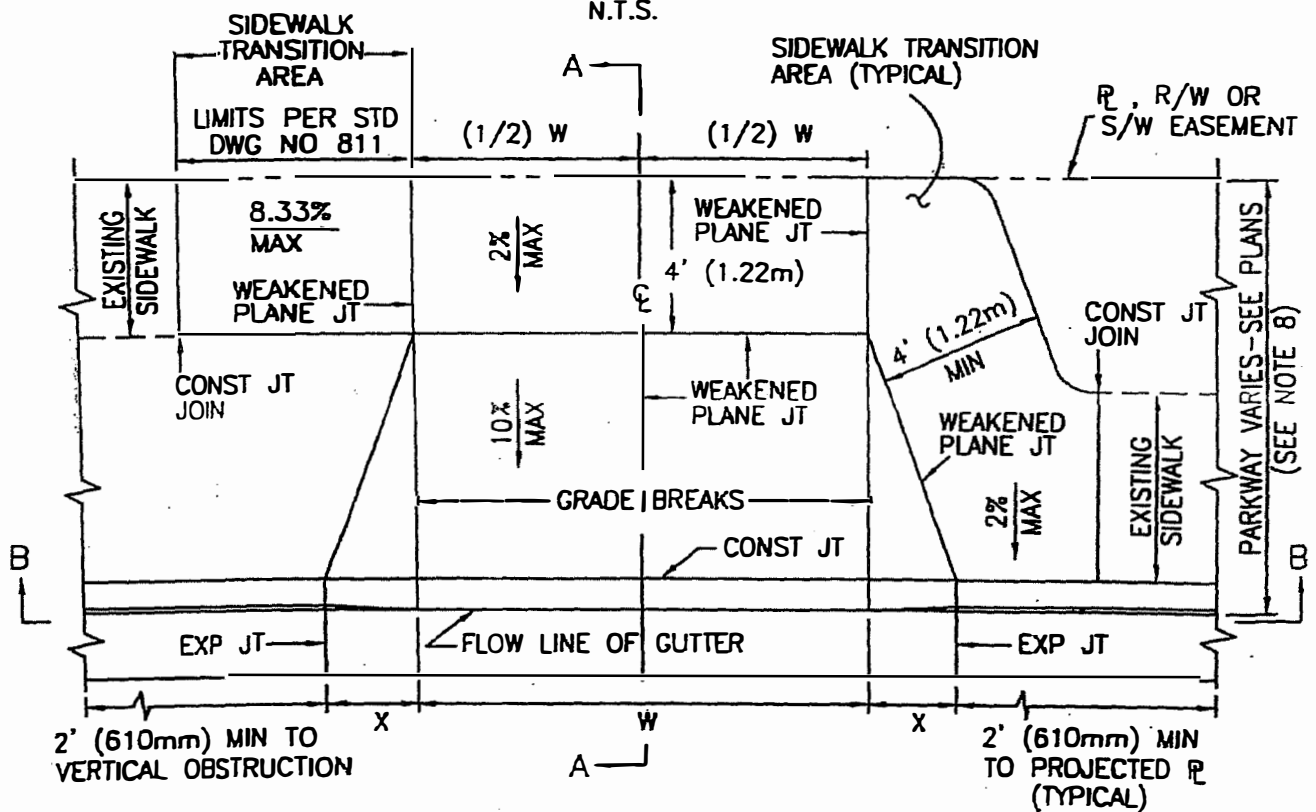
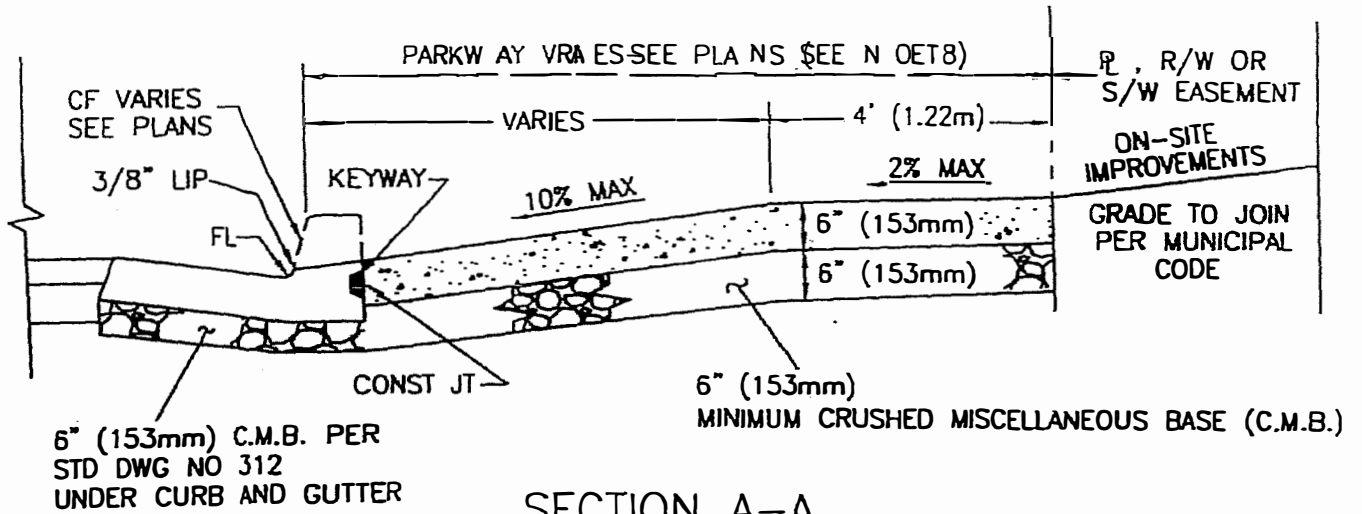
B.D. Mattern DATE 12/13/85
BRUCE D. MATTERN R.C.E. 10300

DRAWN *E.K.S.*

SCALE NONE

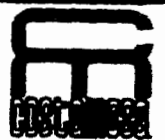
STD. DWG. NO.

419



CITY OF COSTA MESA
PUBLIC SERVICES DEPARTMENT

RESIDENTIAL
DRIVEWAY APPROACH
TYPE I



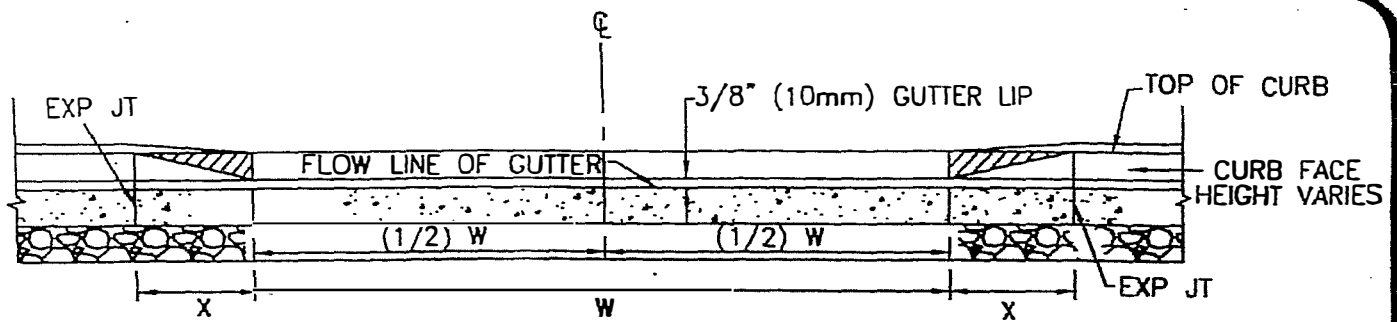
APPROVED BY:

[Signature]
ERNESTO MUNOZ

CITY ENGINEER

[Signature] 1/10/03
WILLIAM MORRIS
DIRECTOR OF PUBLIC SERVICES

STD. DWG. NO.
513



SECTION B-B

N.T.S.

DIMENSIONS

W=10' (3.05m) MIN - 16' (4.88m) MAX FOR RESIDENTIAL DRIVEWAYS.

X= 4' (1.22m) FOR 6" (153mm) CURB FACE.

X= 5' (1.52m) FOR 8" (204mm) CURB FACE.

NOTES:

1. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY THE TRANSPORTATION SERVICES DIVISION.
2. THERE SHALL BE ONE DRIVEWAY PER PROPERTY.
3. CONCRETE SHALL BE CLASS 560-C-3250 PER LATEST EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.
4. DEPRESSED CURB IS STRAIGHT GRADED WITH 3/8" (10mm) GUTTER LIP.
5. BASED UPON EXISTING SOIL CONDITIONS, THE CITY ENGINEER MAY REQUIRE A KEYWAY AT BACK OF CURB.
6. FOR JOINT DETAILS AND KEYWAY DETAIL, SEE STD DWG NO 314.
7. ALL PARTIAL DRIVEWAY RECONSTRUCTION SHALL REQUIRE TIE BARS (#4 x 24") AT 24" ON CENTER.
8. FOR A 5' (1.52m) PARKWAY, A 3' (914mm) PUBLIC SIDEWALK EASEMENT IS REQUIRED AT THE BACK OF RIGHT-OF-WAY/PROPERTY LINE.

CITY OF COSTA MESA
PUBLIC SERVICES DEPARTMENT

RESIDENTIAL
DRIVEWAY APPROACH
TYPE I



APPROVED BY:

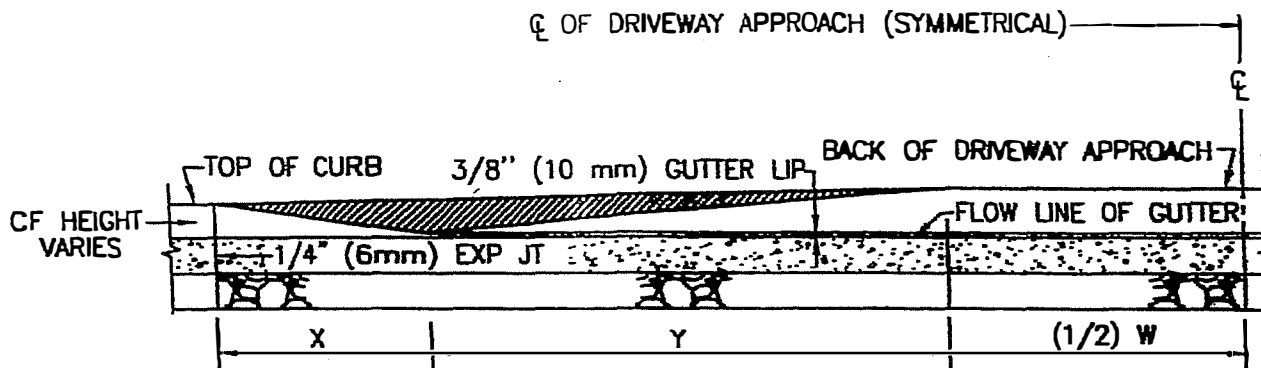
ERNESTO MORALES

CITY ENGINEER

WILLIAM MORRIS 1/10/03
DIRECTOR OF PUBLIC SERVICES

STD. DWG. NO.

513



SECTION B-B
N.T.S.

DIMENSIONS

- W= 16' (4.88m) MIN – 26' (7.92m) MAX FOR ALL DRIVEWAYS.
- X= 4' (1.22m) FOR 6" (150mm) CURB FACE.
- X= 5' (1.52m) FOR 8" (200mm) CURB FACE.
- Y= 7' (2.13m) ON MASTER PLAN STREETS
- Y= 4' (1.22m) ON RESIDENTIAL, NON-MASTER PLAN STREETS.

NOTES:

1. ALL DRIVEWAY LOCATIONS AND DIMENSIONS SHALL BE APPROVED BY THE TRANSPORTATION SERVICES DIVISION.
2. CONCRETE SHALL BE CLASS 560-C-3250 PER LATEST EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SEC. 201-1.
3. DEPRESSED CURB IS STRAIGHT GRADED WITH 3/8" (10mm) GUTTER LIP.
4. BASED UPON EXISTING SOIL CONDITIONS, THE CITY ENGINEER MAY REQUIRE A KEYWAY AT BACK OF CURB.
5. FOR JOINT DETAILS AND KEYWAY DETAIL, SEE STD DWG NO 314.
6. ALL PARTIAL DRIVEWAY RECONSTRUCTION SHALL REQUIRE TIE BARS (#4 x 24") AT 24" ON CENTER.
7. FOR A 5' (1.52m) PARKWAY, A 3' (914mm) PUBLIC SIDEWALK EASEMENT IS REQUIRED AT THE BACK OF PROPERTY/RIGHT-OF-WAY LINE.
8. CASE I – SIDEWALK ADJACENT TO CURB AND GUTTER. NO GREENBELT.
CASE II – EXISTING GREENBELT BETWEEN SIDEWALK AND CURB AND GUTTER.

CITY OF COSTA MESA
PUBLIC SERVICES DEPARTMENT

DRIVEWAY APPROACH-TYPE II
COMMERCIAL AND MULTI-USE



APPROVED:

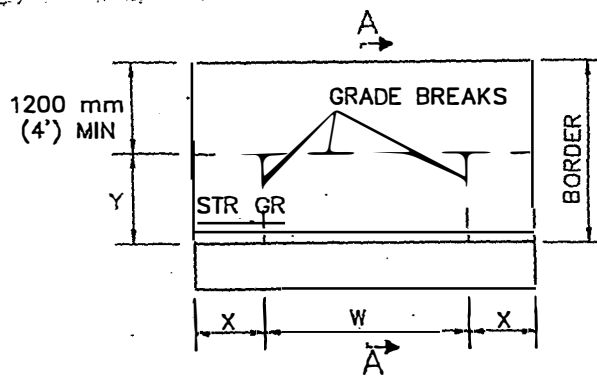
ERNESTO MUÑOZ

CITY ENGINEER

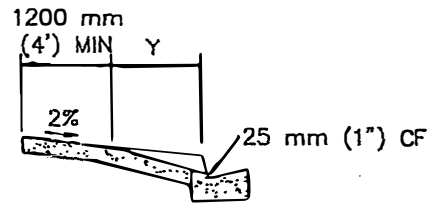
William Loring 9/24/03
WILLIAM LORING DIRECTOR OF PUBLIC SERVICES

STD. DWG. NO.

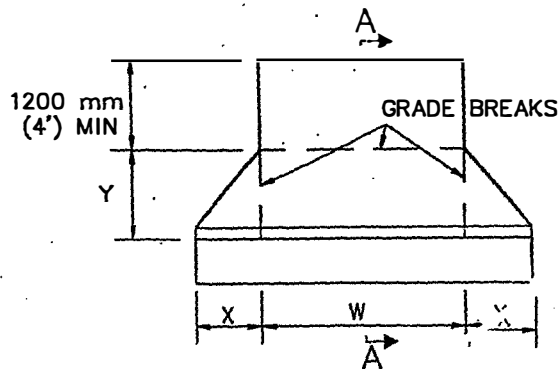
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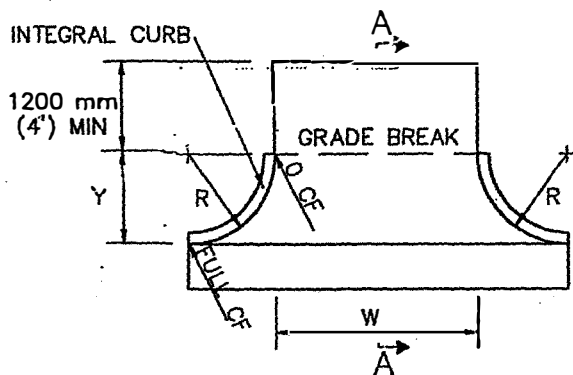
TYPE A



SECTION A-A



TYPE B



TYPE C

CURB FACE, mm	X, mm	Y, mm
150 (6") or less	900 (3'-0")	1200 (4'-0")
175 (7")	1050 (3'-6")	1425 (4'-9")
200 (8")	1200 (4'-0")	1700 (5'-8")
225 (9")	1350 (4'-6")	1950 (6'-6")
250 (10")	1500 (5'-0")	2175 (7'-3")
275 (11")	1650 (5'-6")	2400 (8'-0")
300 (12") or more	1800 (6'-0")	2625 (8'-9")

NOTES:

1. RESIDENTIAL DRIVEWAYS SHALL BE 100 mm (4") THICK PCC.
2. COMMERCIAL DRIVEWAYS SHALL BE 150 mm (6") THICK PCC.
3. WEAKENED PLANE JOINTS SHALL BE INSTALLED AT BOTH SIDE OF A DRIVEWAY AND AT APPROXIMATELY 3000 mm (10') INTERVALS.
4. CURB FOR TYPE C DRIVEWAY SHALL BE INTEGRAL AND MATCH ADJACENT CONSTRUCTION.
5. REFER TO LOCAL DEVELOPMENT REGULATIONS FOR AMERICANS WITH DISABILITIES ACCESS REQUIREMENTS AND MAXIMUM PERMITTED DRIVEWAY WIDTHS.
6. DIMENSIONS SHOWN ON THIS PLAN FOR METRIC AND ENGLISH UNITS ARE NOT EXACTLY EQUAL VALUES. IF METRIC UNITS ARE USED, ALL VALUES USED FOR CONSTRUCTION SHALL BE METRIC VALUES. IF ENGLISH UNITS ARE USED, ALL VALUES USED FOR CONSTRUCTION SHALL BE ENGLISH VALUES.

AMERICAN PUBLIC WORKS ASSOCIATION - SOUTHERN CALIFORNIA CHAPTER

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1998

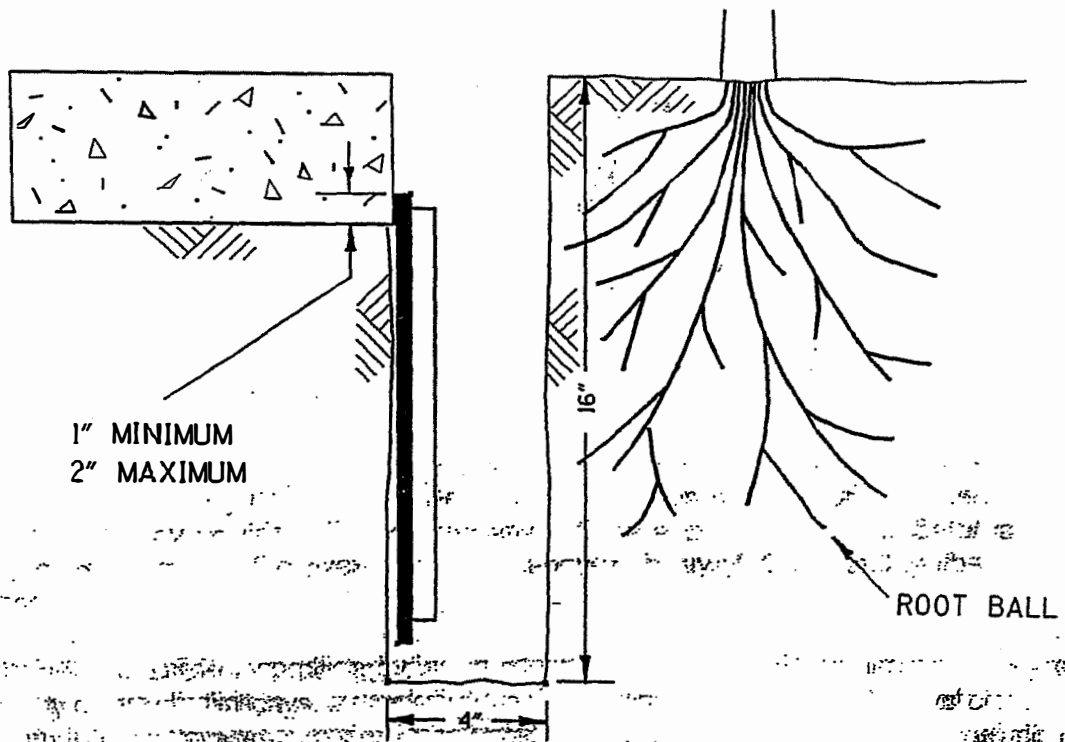
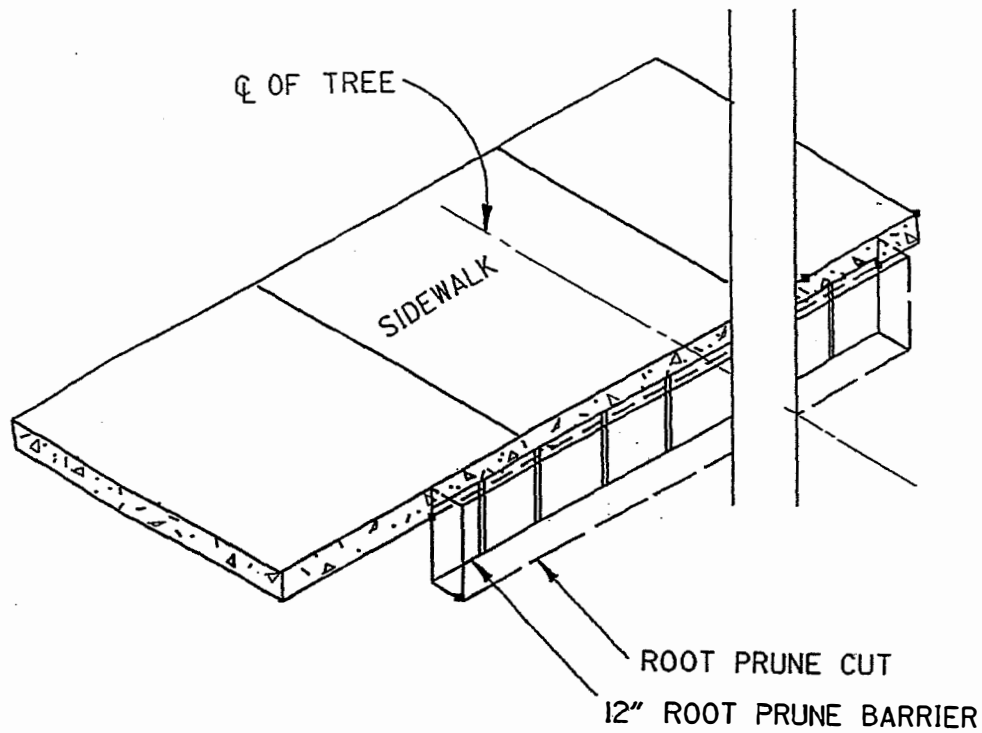
DRIVEWAY APPROACHES

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN
METRIC

110 - 1

SHEET 1 OF 1



ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

STD. PLAN

Adopted: Res. 78-791 Re. Revised: Res. 86-1141, 88-1341, 96-546

Approved: *W. L. Zoum*
W. L. Zoum, Director of Public Works

1708

TREE ROOT BARRIER

SHT. 1 OF 2

NOTES:

Tree Trimming :

1. Prior to root pruning, each tree shall be trimmed to reduce its overall size by one-third (1/3) and to promote improved growth.

Trimming shall also provide:

- a. Removal of all dead, damaged, diseased, or structurally deficient limbs;
- b. Thinning to reduce interior wind resistance;
- c. Vertical clearance of 14.0 feet over roadways 9.0 feet over sidewalks;
- d. Visual clearance around all traffic control devices and signs;
- e. An overall balanced appearance.

2. Root Pruning :

Root pruning cuts shall be made immediately adjacent to the sidewalk and shall be 4" wide, 16" deep (measured from the top of the final grade of the sidewalk) and 16' long centered 8' either side of the center of the tree. The bottom 13" of the root prune cut shall be filled with pea gravel, to promote deeper watering, with the top 3" filled with native soil free from rocks or other materials that would interfere with landscape maintenance tasks. At least 18 months shall transpire before root pruning the opposite of a tree. In general, root pruning would not be performed adjacent to the curb due to the normal depth of the curb.

3. Root Control Barrier :

Barrier shall be fabricated from a high density, high impact plastic, i.e. Polystyrene, Polyethylene, Polyvinyl Chloride, (PVC), or Acrylonitrile-Butadiene-Styrene (ABS). The interior surface shall have 1/2" high (minimum) raised vertical ribs spaces 6" to 8" apart the full depth of the barrier and shall be expressly designed for root deflection.

Barrier used for root pruning shall have a minimum depth of 12" with a minimum thickness of 0.06". Barriers shall be 16 feet long in one continuous piece (preferred) or in a combination of pieces securely fastened with adhesive at joint points.

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

Approved

W.L. Zaur
W.L. Zaur, Director of Public Works

Adopted: Res. 78-791 Revised: Res. 86-1141; 88-1341; 96-546

TREE ROOT BARRIER

STD. PLAN

1708

SHT.2 OF 2

UNITED STATES POST OFFICE

OUR REF: WED13:JDIAZ:am:-9998

DATE: May 30, 1990

SUBJECT: Location of mailboxes

P.O.CL:

TO: City of Costa Mesa

Mailboxes shall be located on the right hand side of the roadway in the direction of the delivery route except on one way streets where they may be placed on the left hand side. The bottom of the box shall be set at an elevation established by the U.S. Postal Service, usually between 3'6" and 4'0" above the roadway surface.

On curbed streets, the roadside face of the mailbox shall be set back from the face of the curb a distance between 6 and 12 inches. On residential streets without curbs, that carry low traffic volumes, the roadside face of a mailbox shall be offset between 8 and 12 inches behind the edge of pavement.

156.54 D.M.M. Location

Rural boxes must be placed so that they may be safely and conveniently served by carriers without leaving their conveyances.

In all new housing tracks, we instruct the builders to install curbside delivery boxes at 2 to a post, at the property line on the curb.

155.262 Hardship cases

a) Changes in the type of delivery authorized for an area will be considered where service by existing methods would impose an extreme physical hardship on an individual customer. Any request for a change in delivery methods must be submitted in writing. Approval of these requests should be based upon humanitarian and not economic criteria. Each request for a change in delivery service should be evaluated on the basis of the customer's needs; a request should not be denied solely because of increased operational costs or because a family member or other party may be available to receive mail for the customer.

MAILBOX IMPROVEMENT WEEK—Continued

Exhibit C

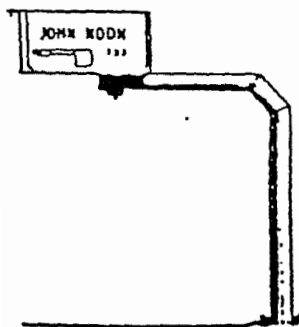
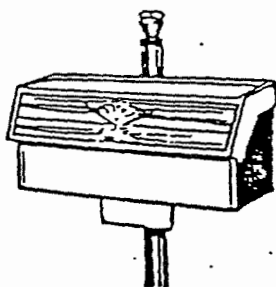


Exhibit D

**Contract Delivery Routes**

Contract delivery route customers must use an approved traditional rural-type or contemporary design box as new or replacement boxes.

General Requirements

The placement of mailboxes on both rural and contract routes must be safe and convenient for carriers. The boxes must be on the right-hand side of the road in the carrier's travel direction so they can deliver mail without leaving their conveyance. This rule especially applies where traffic conditions make it dangerous for the carrier to drive to the left in order to reach the boxes, or when doing so would constitute a violation of traffic laws and regulations (apartment house or other multiple dwellings can be exempted from this rule as described in DMM 156.312).

On new rural routes, all boxes must be on the right-hand side of the road in the direction of the route line of travel. Box placement must conform with state laws and highway regulations. Rural carriers are subject to the same traffic laws and regulations as other motorists. Customers must remove obstructions, including vehicles, trash cans, and snow, that impede efficient delivery. Except when a box is temporarily blocked, carriers must have access to the box without leaving the vehicle unless authorized to dismount.

Mailbox Supports

Supports for mailboxes should be of adequate strength and size to support the box properly. However, customers should avoid using massive mailbox supports that, when struck, could damage vehicles and cause serious injury to vehicle occupants. Heavy metal posts, concrete posts, and miscellaneous items of farm equipment, such as milk cans filled with concrete, are examples of potentially dangerous supports. The ideal support is an assembly that bends or falls away from a striking vehicle. DMM sections 156.531, 156.54, 157.32c, and 157.4 specify postal regulations regarding construction and placement of mailboxes and supports on rural and highway contract routes.

The Federal Highway Administration (FHWA) has determined that mailbox supports no larger than 4 inches by 4 inches or a 4 1/2-inch diameter wood post or a 2-inch diameter standard steel or aluminum pipe, buried no more than 24 inches, should safely break away if struck by a vehicle. The mailbox must also be securely attached to its post to prevent separation when struck. Exhibits E and F on page 12 are detailed examples of mailbox mountings and supports suggested by the FHWA. Boxes and supports should also be painted and free from rust.

NDCBUs and All-Weather Parcel Lockers

During Mailbox Improvement Week, postmasters/managers or their designees should also review Neighborhood Delivery and Collection Box Units (NDCBUs) and All-Weather Parcel Lockers in their delivery area to identify any hazards or irregularities. Exhibit G on page 13 is a suggested format for use in conducting the review. Results of the review should be recorded.

Employees conducting the review must complete Form 1624, *Delivery and Collection Equipment Work Request*, for any equipment that poses a safety hazard to postal customers or employees. Use Form 7380, *MDC Supply Requisition*, to request Form 1624 from the materiel distribution centers.

Equipment Review Procedure

Employees should use the NDCBU and parcel locker Equipment Checklist and Followup Review Procedure, Exhibit G, when examining the condition of NDCBU and parcel locker equipment. This exhibit may be reproduced locally. They should:

1. List the unit location, type, and manufacturer in the left-hand column (omit manufacturer if all items are in order).

2. Assign each checklist item one of the following ratings:

OK—Equipment does not need attention for this item.

X—Equipment needs attention for this item.

NA—Item does not apply to this particular piece of equipment.

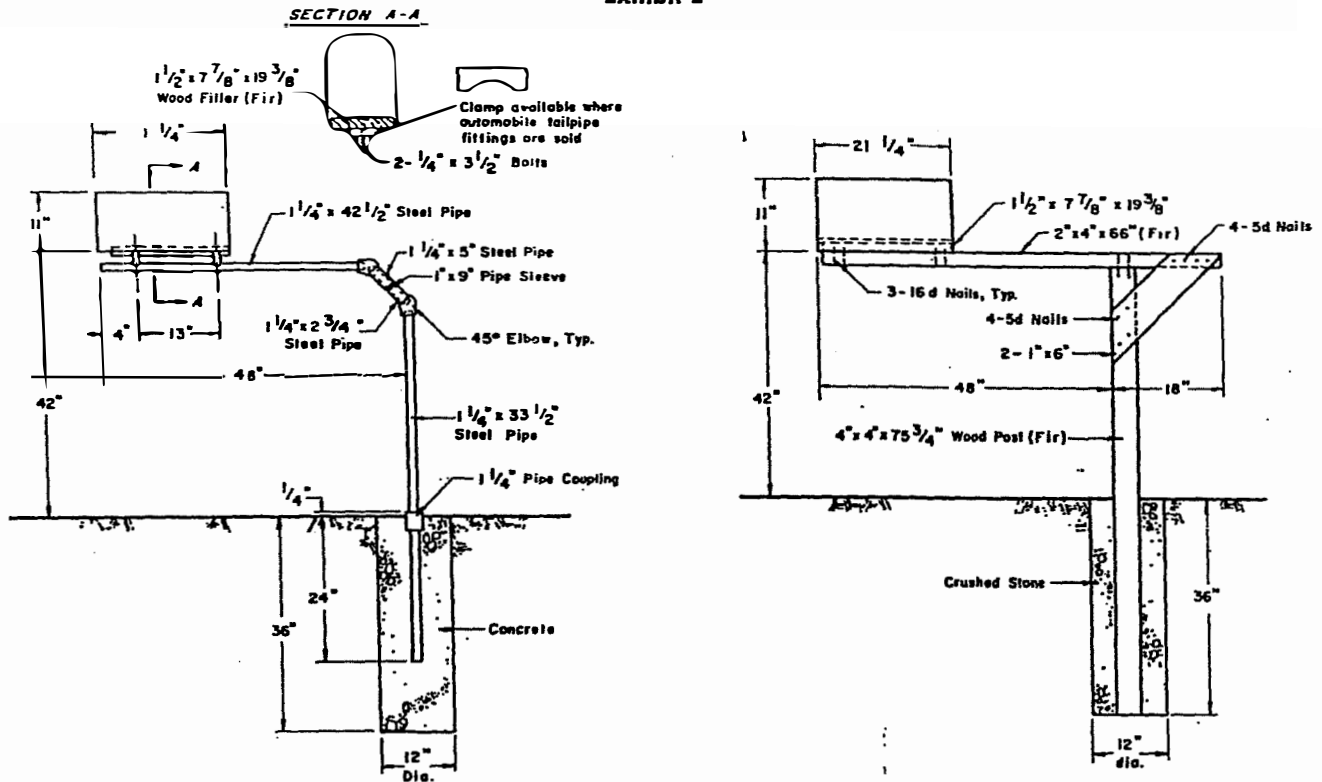
3. Examine the following items and annotate Exhibit G:

a. Equipment should be straight, vertical, and firmly mounted. Attempt to shake the unit; it should not move. If equipment is not firmly mounted, note whether it is the connection at ground level that is loose or the pedestal to customer compartments connection that needs attention.

b. Check visible welds. Make note of cracked, broken, or rusted welds.

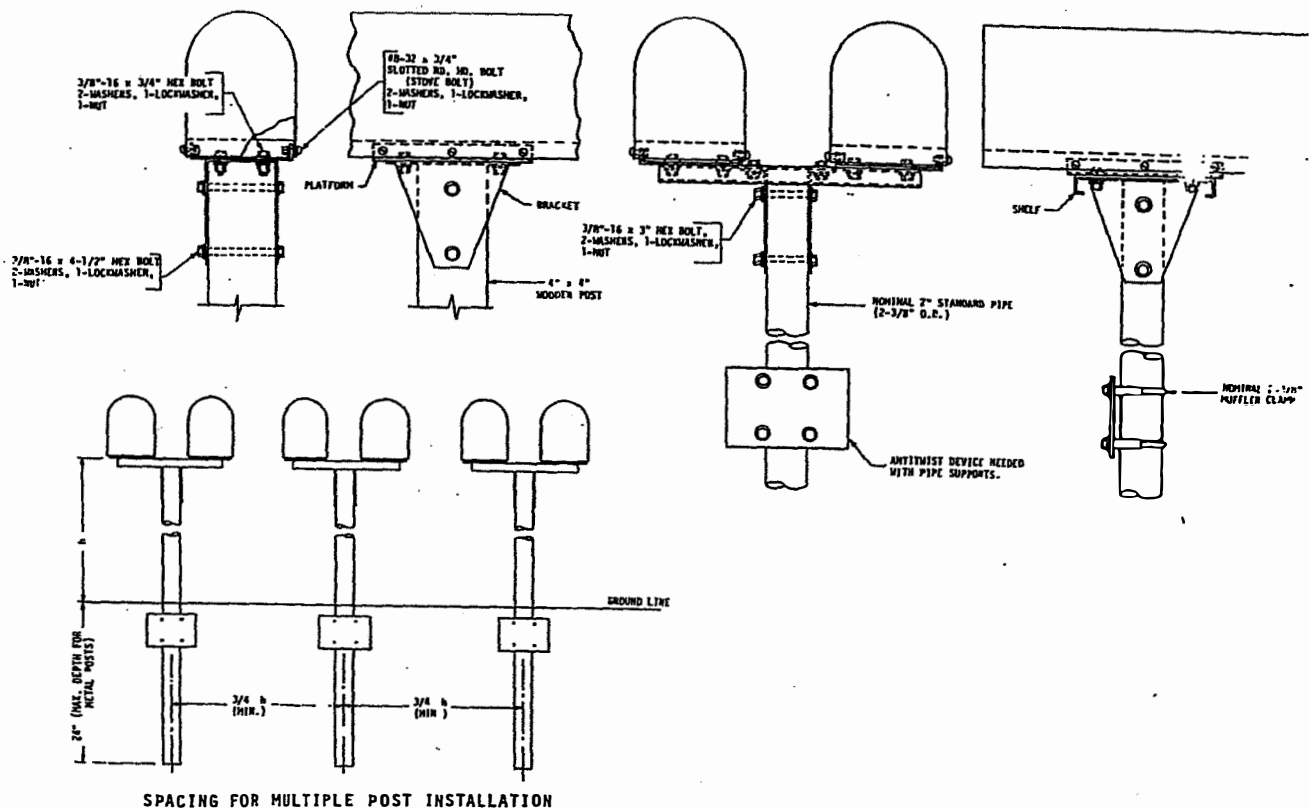
c. Observe whether the carrier access door is locked and secure. Open it and observe that it is not bowed or warped and that the door and locking bar operate smoothly. With carrier access door(s) open, notice if restraining devices prevent the door

Exhibit E

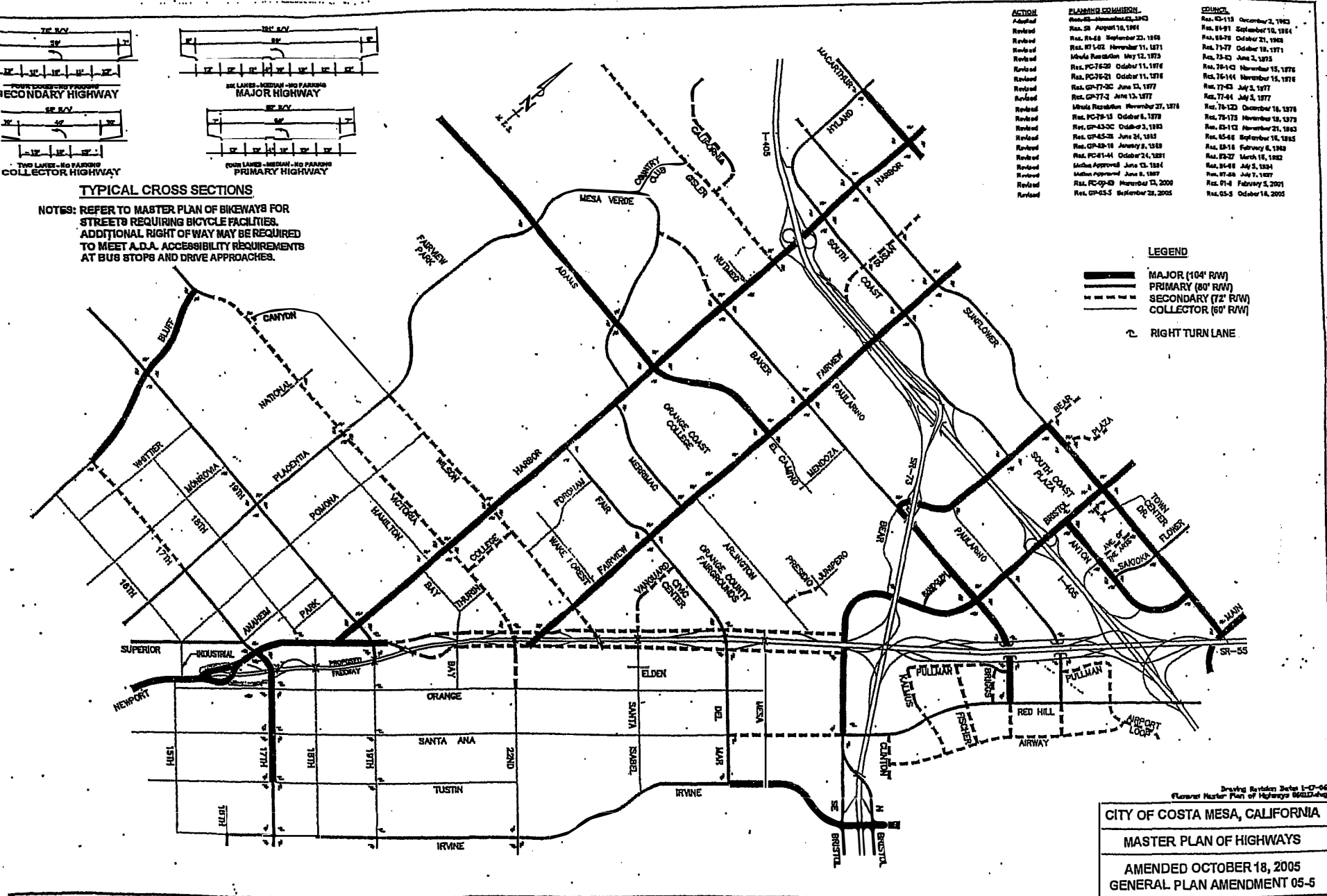


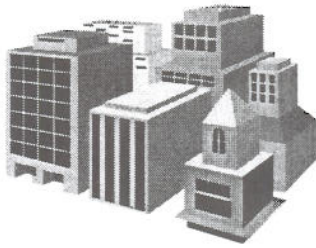
CANTILEVER MAILBOX SUPPORTS

Exhibit F



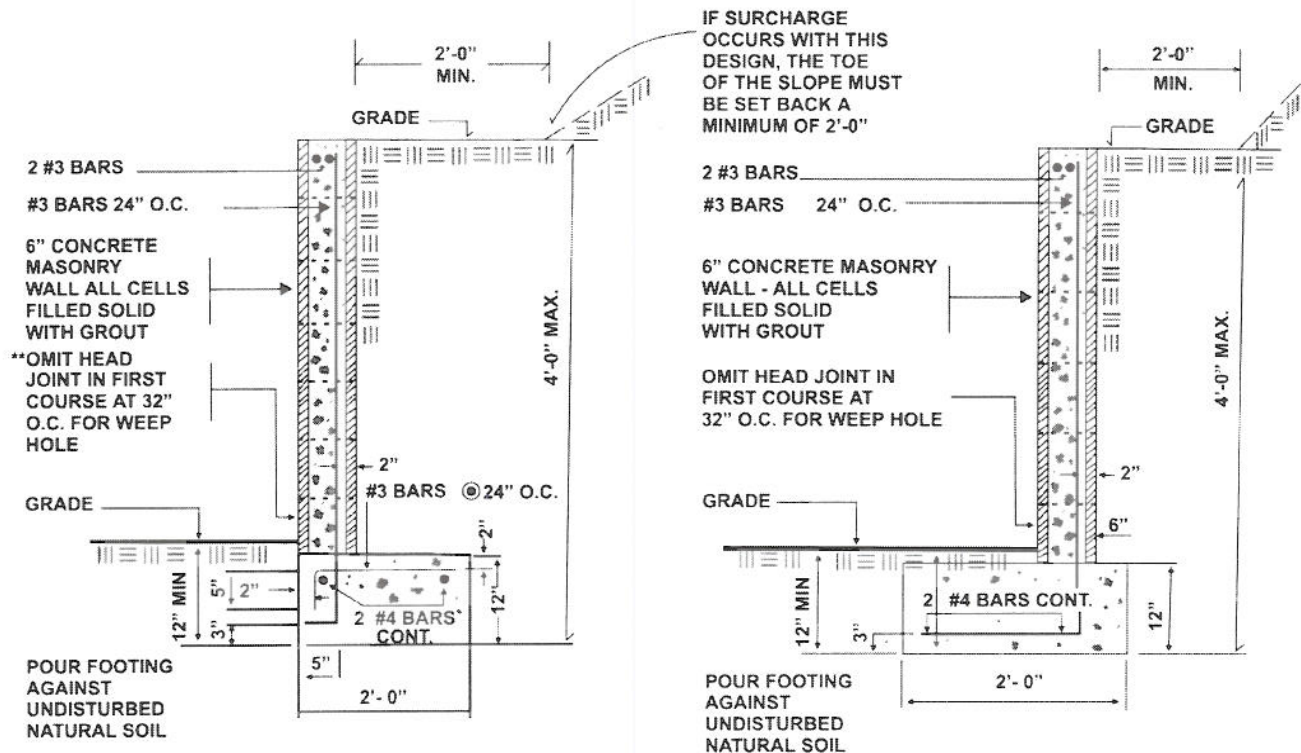
SINGLE AND DOUBLE MAILBOX INSTALLATIONS





City of Costa Mesa Building Division

RETAINING WALLS



**SUBJECT TO ADJACENT PROPERTY OWNER'S APPROVAL

NOTES:

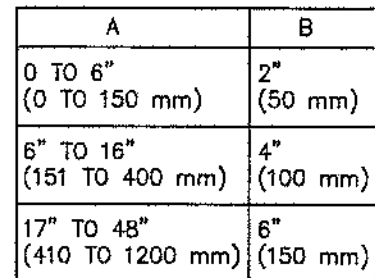
1. Retaining wall shall be grouted solid.
2. Reinforcing splices in masonry shall be lapped not less than 15", in concrete not less than 12".
3. Omit mortar at head joints of first course at 32" o.c.
4. Mortar shall be no leaner than 3 to 1.
5. Inspection required prior to grouting cells.
6. Retaining walls greater than 4'-0" in height or with surcharge loads other than shown above shall be fully engineered by a licensed engineer.
7. Retaining walls with standard concrete block walls or fences of any materials constructed above, shall be fully engineered by a licensed engineer.
8. A survey of the lot may be required by the building official to verify that the structure is located in accordance with the approved plans (2001 CBC, Section 108.1).

SPECIFICATIONS:

CONCRETE: 2500 psi at 28 days.

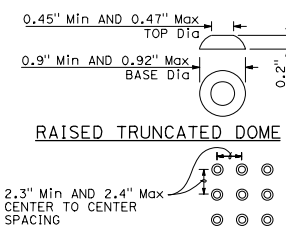
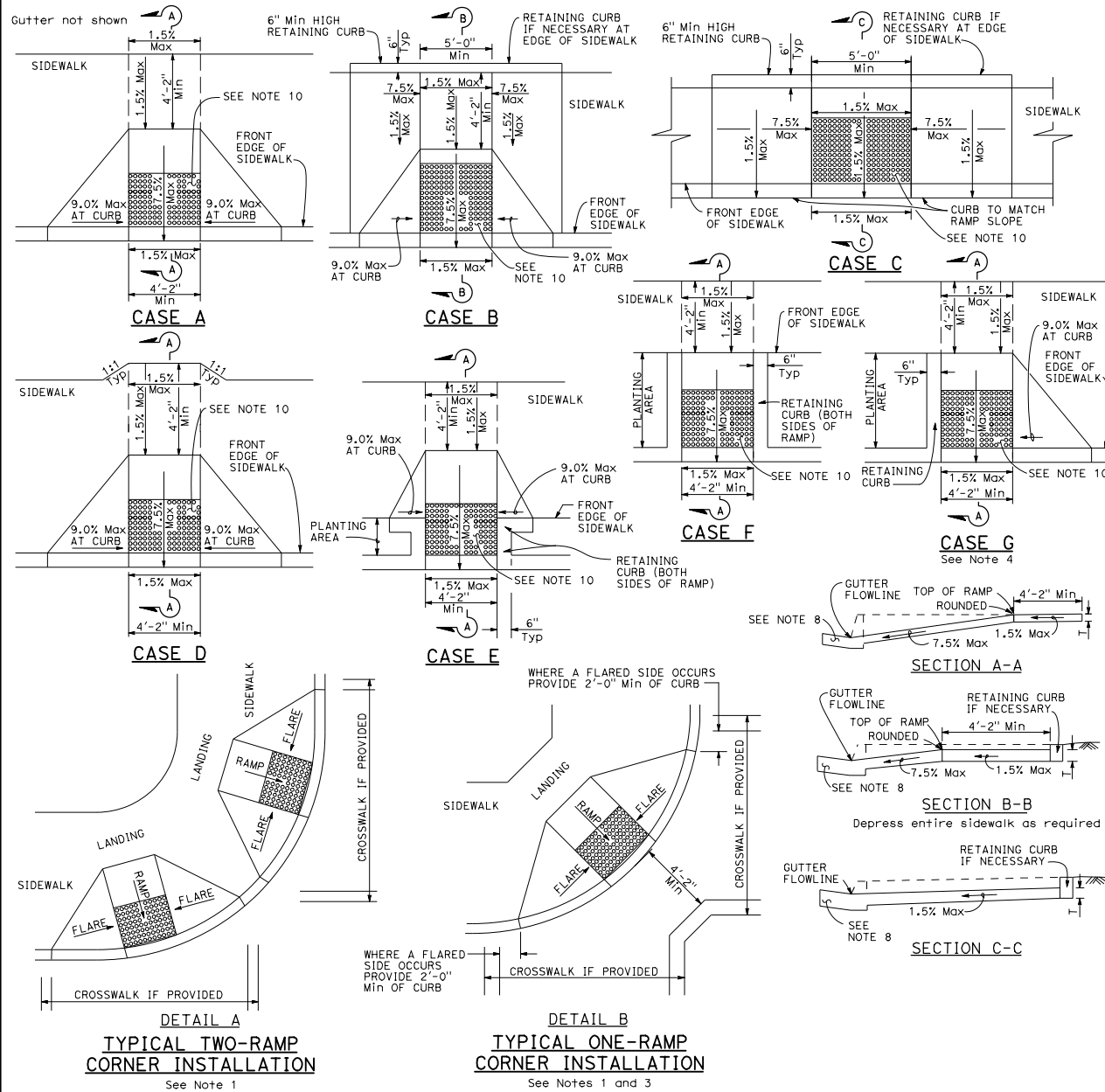
BLOCK: Grade N, Type 1 A.S.T.M. C-90.

REINFORCING: Grade 40 A.S.T.M. A615.



1. MAX HEIGHT OF WALL IS 3 COURSES OF 8" (200 mm) HIGH BLOCK.
2. NO LIVE-LOAD SURCHARGE SHALL BE ALLOWED ON RETAINED SOIL.
3. POUR FOOTING AGAINST UNDISTURBED EARTH.
4. TOP OF FOOTING MAY BE PLACED AT SAME GRADE AS STREET IF STREET GRADE IS UNIFORM AND 5% MAX.
5. PLACE CONCRETE BLOCKS IMMEDIATELY AFTER POURING THE FOOTING. FILL ALL CELLS SOLID WITH GROUT AND ROD SO THAT GROUT IS MONOLITHIC WITH FOOTING.
6. IN FIRST COURSE ABOVE FINISHED GRADE, OMIT MORTAR FROM VERTICAL JOINTS EACH 32" (800 mm) TO SERVE AS WEEP HOLES.

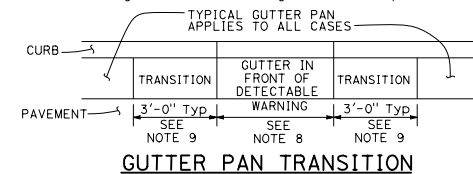
SHEET 1 OF 1



RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE

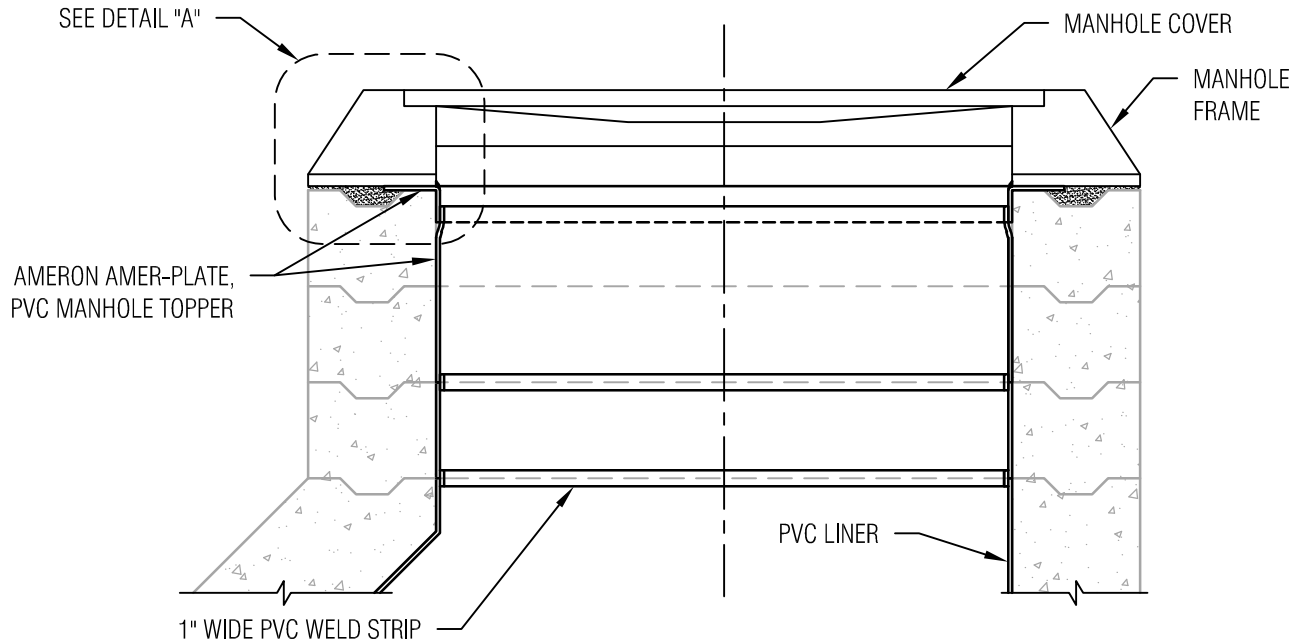
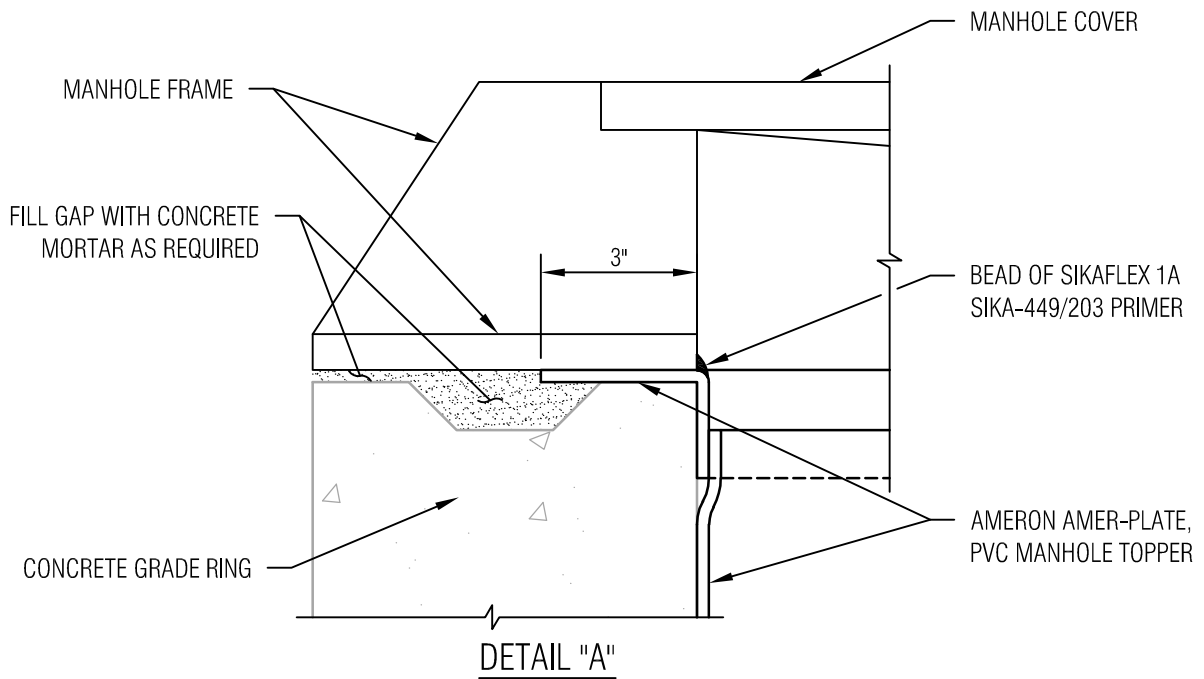
NOTES: See Note 10

- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate. For specific site condition configuration, including the conform to existing sidewalk, see Project Plans.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- The ramp portion of the curb ramp is a typical rectangle, unless modified in the Project Plans.
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Transition gutter pan slope from 1" of depth for each 2'-0" of width to match typical gutter pan slope per Standard Plan A87A.
- The detectable warning surface will be a rectangle as shown at back of curb, unless modified in the Project Plans. Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. Detectable warning surfaces shall extend the full width of the ramp except a maximum gap of 1 inch is allowed on each side of the ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness, "T", shall be 3 1/2" minimum.
- Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining detectable warning width and depth.




STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
CURB RAMP DETAILS
NO SCALE

A88A





NOTES:

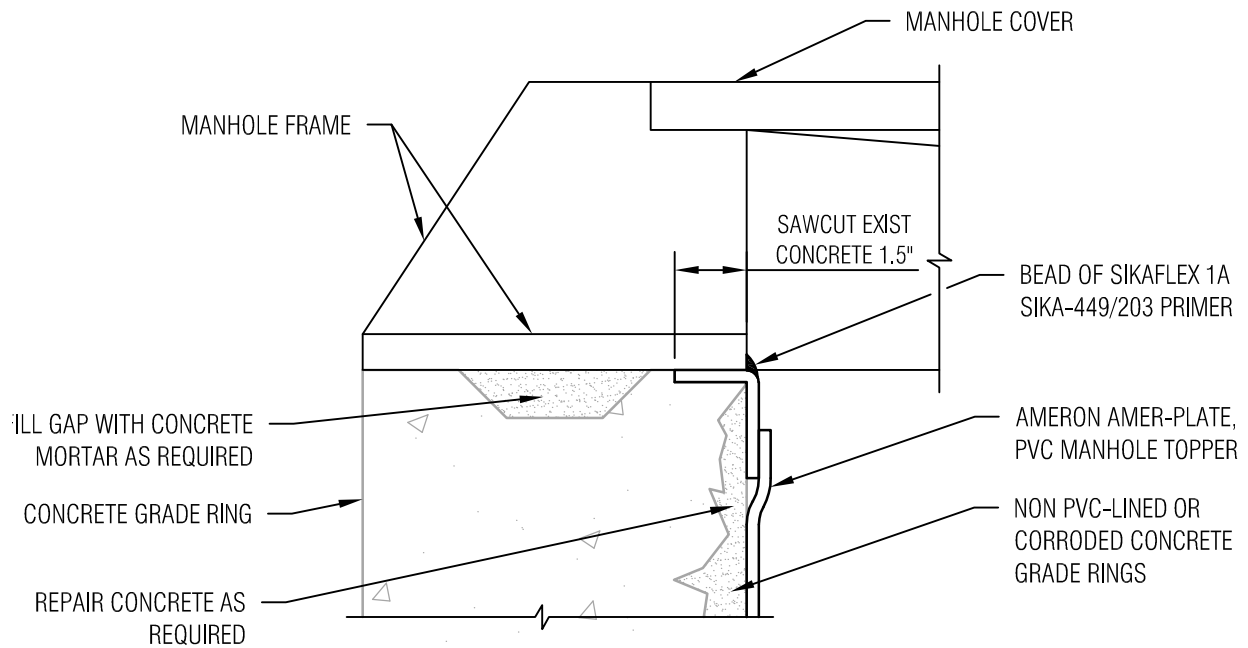
1. MAKE FINAL ADJUSTMENTS AT THE MORTAR JOINT BETWEEN THE FIRST AND SECOND GRADE RINGS. SET FLUSH WITH PAVEMENT TO ONE-EIGHTH INCH HIGH.
2. ADD OR REMOVE GRADE RINGS, REPAIR PVC OR SPRAYED ON LINER, AND TEST LINER FOR PINHOLES AND "PROBE TEST" FOR WEAK WELDS AS APPROVED BY THE ENGINEER. ADJUST HEIGHT AT MANHOLE RISER SECTIONS IF THE TOTAL HEIGHT OF GRADE RINGS WOULD EXCEED 24 INCHES.
3. BACKFILL FLUSH WITH SURFACE OR BELOW PAVEMENT SURFACE AS REQUIRED GOVERNING AGENCY WITH 3250 PSI (CLASS B) QUICK SETTING CONCRETE FOR COLLAR. EXPOSED CONCRETE SHALL BE BLACK IN COLOR.
4. FILL AREA ABOVE BELOW-GRADE COLLAR WITH AC WEARING SURFACE TO MATCH ADJACENT AC.
5. WHERE ODOR CONDITIONS EXIST OR WHERE DESIGNATED, SEAL MANHOLE RIM AND HOLES WITH DUCT-SEAL MASTIC. RE-SEAL IF EXISTING MANHOLE COVER WAS SEALED.

			ORANGE COUNTY SANITATION DISTRICT ORANGE COUNTY, CALIFORNIA APPROVED BY  _____ DIRECTOR OF ENGINEERING DATE 5/20/18	PVC LINER INSTALLATION EXISTING MANHOLE ADJUST TO GRADE	NO SCALE
					STANDARD DWG.
1	EDAC	02/22/2017			S-050A
NO.	APPROVED	DATE			

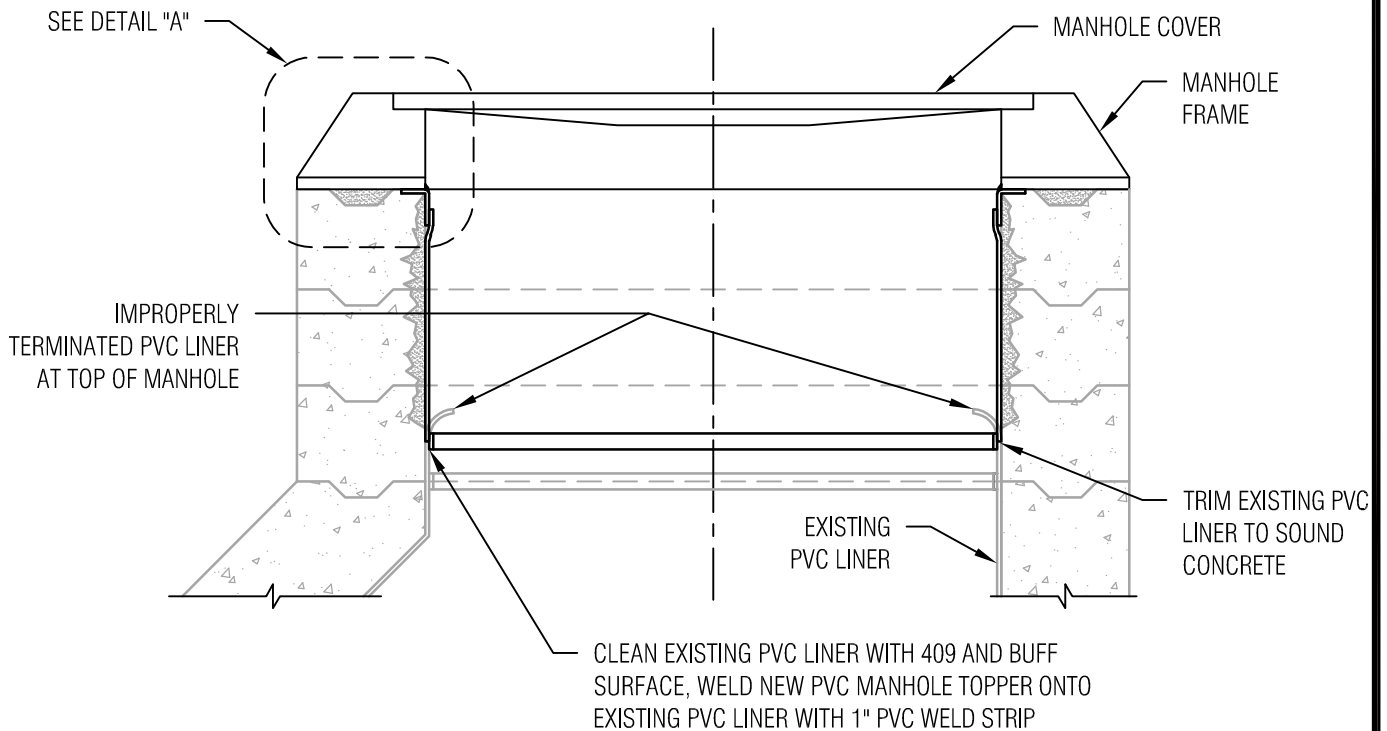


1. NEATLY REMOVE PAVEMENT AND AGGREGATE BASE AS NECESSARY TO MAKE ADJUSTMENT.
2. MAKE FINAL ADJUSTMENTS AT THE MORTAR JOINT BETWEEN THE FIRST AND SECOND GRADE RINGS. SET FLUSH WITH PAVEMENT TO 1/8" HIGH.
3. AT EXISTING MANHOLES, ADD OR REMOVE GRADE RINGS, REPAIR PVC OR SPRAYED LINER, AND TEST LINER FOR PINHOLES AS APPROVED BY THE ENGINEER. ADJUST HEIGHT AT MANHOLE RISER SECTIONS IF THE TOTAL HEIGHT OF GRADE RINGS WOULD EXCEED 24".
4. BACKFILL FLUSH WITH SURFACE OR BELOW PAVEMENT SURFACE AS REQUIRED BY GOVERNING AGENCY WITH 3250 PSI (CLASS B) QUICK-SETTING CONCRETE TO FORM COLLAR. EXPOSED CONCRETE SHALL BE BLACK IN COLOR.
5. FILL AREA ABOVE BELOW-GRADE COLLAR WITH AC WEARING SURFACE TO MATCH ADJACENT AC.
6. WHERE ODOR CONDITIONS EXIST OR WHERE DESIGNATED, SEAL MANHOLE RIM AND HOLES WITH DUCT-SEAL MASTIC. RE-SEAL IF EXISTING MANHOLE COVER WAS SEALED.

			ORANGE COUNTY SANITATION DISTRICT ORANGE COUNTY, CALIFORNIA APPROVED BY   5/20/18 DIRECTOR OF ENGINEERING	MANHOLE ADJUSTMENT TO GRADE	NO SCALE
1	EDAC	02/22/2017			STANDARD DWG.
NO.	APPROVED	DATE			S-055




DETAIL "A"



EXISTING MANHOLE PVC LINER DETAIL

NOTES:

1. AT EXISTING MANHOLES, ADD OR REMOVE GRADE RINGS, REPAIR PVC OR SPRAYED ON LINER, AND TEST LINER FOR PINHOLES AND "PROBE TEST" FOR WEAK WELDS AS APPROVED BY THE ENGINEER. ADJUST HEIGHT AT MANHOLE RISER SECTIONS IF THE TOTAL HEIGHT OF GRADE RINGS WOULD EXCEED 24 INCHES.
2. WHERE ODOR CONDITIONS EXIST OR WHERE DESIGNATED, SEAL MANHOLE RIM AND HOLES WITH DUCT-SEAL MASTIC. RE-SEAL IF EXISTING MANHOLE COVER WAS SEALED.

			ORANGE COUNTY SANITATION DISTRICT ORANGE COUNTY, CALIFORNIA APPROVED BY  _____ DIRECTOR OF ENGINEERING	PVC LINER REPAIR EXISTING MANHOLE	NO SCALE	
					STANDARD DWG.	
1	EDAC	02/22/2017			S-055A	
NO.	APPROVED	DATE	_____ DATE			